The Evolution of Accountable Care Organizations: Promise and Performance

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Accountable Care Organizations (ACOs)

Entities that accept accountability for the cost and quality of care provided to a defined population of potential patients
Accountable Care Organizations

- 30 Pioneers
- 337 Shared Savings
- Over 200 Private Sector
- 606 Overall

Source: Leavitt Partners, LLC, 2014
ACOs Are Serving Millions Nationwide

- 5.3 million Medicare beneficiaries
- 6.1% of U.S. population—approximately 20 million
- 55% of the U.S. population has access to an ACO

By State

- Oregon: >25%
- Alaska, Iowa, Massachusetts, Maine, New Hampshire, Utah, Vermont: >10%
- California: 40+ ACOs

Source: Leavitt Partners, LLC, 2014
Estimated ACO Penetration by Hospital Referral Region

% ACO lives
- >15%
- 10-15%
- 5-10%
- 3-5%
- 1-3%
- .5-1%
- .1-.5%
- 0-.1%
### Table 1: Characteristics of Accountable Care Organizations, the National Survey of Accountable Care Organizations (N=173)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provider organization ACO contracts</strong></td>
<td></td>
</tr>
<tr>
<td>Proportion Medicare ACO program participants</td>
<td>0.66 (0.04)</td>
</tr>
<tr>
<td>Proportion with Medicaid ACO contract</td>
<td>0.25 (0.03)</td>
</tr>
<tr>
<td>Proportion with commercial payer ACO contract</td>
<td>0.51 (0.04)</td>
</tr>
<tr>
<td><strong>Number of clinicians in each ACO</strong></td>
<td></td>
</tr>
<tr>
<td>Primary care physicians</td>
<td>179 (14)</td>
</tr>
<tr>
<td>Specialty physicians (measured as FTE number of physicians)</td>
<td>241 (25)</td>
</tr>
<tr>
<td><strong>Proportion of ACOs that:</strong></td>
<td></td>
</tr>
<tr>
<td>Include one or more hospitals</td>
<td>0.63 (0.04)</td>
</tr>
<tr>
<td>Include one or more community health centers</td>
<td>0.28 (0.04)</td>
</tr>
<tr>
<td>Include one or more nursing facilities</td>
<td>0.22 (0.03)</td>
</tr>
<tr>
<td>Identify as an integrated delivery system</td>
<td>0.54 (0.04)</td>
</tr>
</tbody>
</table>

Table 1: Characteristics of Accountable Care Organizations, the National Survey of Accountable Care Organizations (N=173) (continued)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of ACOs with the following capabilities</td>
<td></td>
</tr>
<tr>
<td>Comprehensive care management for chronic conditions</td>
<td>0.32 (0.04)</td>
</tr>
<tr>
<td>Routinely assess inappropriate ER use</td>
<td>0.45 (0.04)</td>
</tr>
<tr>
<td>Fully developed program to assess and reduce hospital readmission</td>
<td>0.46 (0.04)</td>
</tr>
<tr>
<td>Monitors system-wide quality performance</td>
<td>0.50 (0.04)</td>
</tr>
<tr>
<td>Advanced IT capabilities</td>
<td>0.25 (0.03)</td>
</tr>
<tr>
<td>Proportion of ACOs in each region</td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>0.27 (0.03)</td>
</tr>
<tr>
<td>South</td>
<td>0.26 (0.03)</td>
</tr>
<tr>
<td>Midwest</td>
<td>0.25 (0.03)</td>
</tr>
<tr>
<td>West</td>
<td>0.23 (0.03)</td>
</tr>
<tr>
<td>Total sample:</td>
<td>173</td>
</tr>
</tbody>
</table>

What are they doing?

Contracts

- 57% One contract only
- 79% Shared Savings contingent on meeting quality standards
- 56% of private contracts included some downside risk
- 56% of private payer contracts included upfront payments—for care management or capital investment

Source: National Survey of Accountable Care Organizations, Dartmouth-Berkeley, October 2012-May 2013
What are they doing? (cont’d)

Prescribing

- 77% of private contracts held the ACO responsible for prescription drug costs
- 73% use a formulary to control drug costs
- About half use e-prescribe and confirm fill

Other

- 28% included a community health center

Source: National Survey of Accountable Care Organizations, Dartmouth-Berkeley, October 2012-May 2013
Those with a Community Health Center (N=44)

- No more likely to receive an upfront payment
- But were more likely to find it very challenging to secure sufficient funds
- More likely to integrate behavioral health into primary care (28% vs. 8%)
- More likely to involve patients in their care (32% vs. 18%)

Source: National Survey of Accountable Care Organizations, Dartmouth-Berkeley, October 2012-May 2013
Reaching for the Triple Aim

- Improved quality and overall patient experience
- Constrained costs
- Improved population health
Are ACOs more than a guess?

What is the evidence to date?
ACOs can improve care

ACOs can control costs
Schematic overview of the Accountable Care Organization (ACO) Evaluation Logic Model

The Upside

Of the 32 Pioneer ACOs:

• 18 Generated savings for Medicare
• 13 Generated enough savings to keep $76.1 million
• 32 Successfully reported quality measures
• 25 Had lower risk-adjusted readmission rates (compared with benchmark rate for all Medicare fee-for service beneficiaries)

The Downside

Of the **32** Pioneer ACOs:

- **14** Generated losses for Medicare
- **7** Increased costs enough that they owe Medicare $4.5 million
- **7** Will transition to Medicare’s more flexible Shared Savings Program
- **2** Will drop out of Medicare accountable care

Medicare Physician
Group Practice Demonstration

• Annual savings per beneficiary/year were modest overall

• But significant for dual eligible population – over $500 per beneficiary, per year

• Improvement on nearly all of 32 quality of care measures

Results of Massachusetts Alternative Quality Contract (AQC)

- Based on global budget and pay-for-performance
- 2.8 percent savings over two years compared to control group
- Shifted procedures, imaging and tests to facilities with lower fees plus reduced utilization
- Quality of care improved by 3.7 percentage points on chronic care management measures
- Savings were greater in second year than first year, and quality improvement was greater in second year than first year.

Sacramento Blue Shield: Dignity-Hill-CalPERS Experience

- 42,000 CalPERS Members

- Set target premium first (no increase in 2010) and then worked backward to achieve it

- Saved $20 million, $5 million more than target, while meeting quality metrics

Sacramento Blue Shield: Dignity-Hill-CalPERS Experience (cont’d)

Package of interventions:

- Integrated discharge planning
- Care transitions and patient engagement
- Created a health information exchange
- Found that top 5,000 members accounted for 75% of spending
- Evidence-based variance reduction
- Visible dashboard of measures to track progress

Early Lessons from Brookings-Dartmouth ACO Pilot Studies

Common Elements Across All Four Sites:

• Electronic health record functionality
  – Disease registries
  – Data warehouses
  – Predictive modeling to identify high-risk patients

• High-risk patient complex care management programs

• Physician champions

• Mature quality improvement – Six Sigma, LEAN

Some Examples of Care Management Strategies Among Top Performing Physician Groups in California (N=10)

- Relatively high electronic health record functionality
- Registries to identify high risk patients
- Use of pharmacists on care team
- Aggressive phone outreach
- Physician specific feedback reports

**BUT** LITTLE USE OF interdisciplinary team approaches

Some Key Issues

• Enrollment size matters – achieve sufficient savings to spread overhead and related costs

• Care management is key:
  – 5/50 stratification
  – Multiple chronic illness, frail elderly, dual eligibles, mental illness
Some Key Issues (cont’d)

• Building new relationships
  – Business model changes most for hospitals
  – Integrating different professional/social identities
  – Physician engagement
  – Collaborative governance

• New tools required:
  – Information exchange across the continuum
  – Predictive risk modeling
Some Key Issues (cont’d)

• Patient activation and engagement

• Agreeing on a common set of cost and quality measures and thresholds, across payer contracts
ACOs and Physician Practices

Who is participating?
What might the future hold?
Characteristics of Physician Practices Participating in ACOs – 2012-2013

- 280 Practices participating in ACOs
- 186 Planning to participate within 12 months
- 717 Not participating or planning to participate

Those participating are:

- Larger (100+)
- More likely to receive patients from an independent practice association (IPA)
- Score higher on patient-centered medical home index measuring ability to care for patients – particularly those with chronic illness
- Less likely to be owned by a hospital/health system

## Patient-Centered Medical Home Processes Associated with ACO Participation

<table>
<thead>
<tr>
<th>PATIENT CENTERED MEDICAL HOME INDICES</th>
<th>Overall</th>
<th>ACO Participant</th>
<th>Planning to Participate in 12 mos.</th>
<th>Not part of an ACO &amp; not planning</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall PCMH index for NSPO3 (0 - 100)*</td>
<td>39.24</td>
<td>53.09</td>
<td>42.21</td>
<td>31.93</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Chronic disease management index</td>
<td>33.53</td>
<td>56.98</td>
<td>33.28</td>
<td>23.44</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Quality and patient safety index</td>
<td>39.92</td>
<td>61.35</td>
<td>41.10</td>
<td>30.08</td>
<td>0.001</td>
</tr>
<tr>
<td>Patient engagement index</td>
<td>31.49</td>
<td>41.47</td>
<td>34.86</td>
<td>25.68</td>
<td>0.002</td>
</tr>
<tr>
<td>Prevention/health promotion index</td>
<td>29.89</td>
<td>43.54</td>
<td>37.03</td>
<td>20.86</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

**SOURCE:** National Study of Physician Organizations III (Jan 2012 – May 2013). **NOTES:** N=880. Results are weighted to be nationally representative. P-values were derived from F-tests. *Score is a percentage of total possible points out of 25.
Patient-Centered Medical Home Index Components

**Care Coordination/Integration**
- EMR
- Access to medical records
- Pharmacy electronic coordination
- Chronic disease registries
- Nurse care managers for chronic disease
- Collect information on race/ethnicity/language
- Hospital transitions
- Patient tracking

**Quality and Safety**
- Participate in quality improvement
- Rapid-cycle quality improvement
- Collect data from electronic records
- Performance feedback to physicians
- Clinical decision support
- Patient educators with dedicated time
- Patient reminders
- Incorporate feedback from physicians
- Tobacco cessation
- Patient receives office visit summary

**Additional Measures**
- Personal Provider
- Physician Directed Medical Practice
- Enhanced access (extended hours, group visits, e-mail)
A Taxonomy of Accountable Care Organizations

Do they share any commonalities?

Can they be classified?
Why a taxonomy/typology?

- To describe the field
- To conduct comparative analysis of performance
- To focus interventions and technical assistance/organization development
- To assess what provider organizations might join ACOs in the future
Two major dimensions

COMPOSITIONAL CAPACITY

- Size
- Breadth of participation
- Scope of services offered
- Member of integrated delivery system
- Percent primary care physicians

GOVERNANCE AND LEADERSHIP

- Physician led, hospital led, jointly led
- Physician performance management
- Payment reform experience
Results

Three clusters/three types:

40.1%  (N=65)

*Larger integrated delivery systems*

33.9%  (N=55)

*Smaller, physician led*

25.9% (N=42)

*Jointly led hybrid*
Larger integrated delivery systems

- Large IDS
- Broad scope of services
- Broad participation -- include post-acute facilities
- Less primary care
- Somewhat more physician led
Smaller, physician led

- Smaller size
- Physician led
- Narrow scope of services offered
- Narrow participation – few have post-acute
- Relatively high percent primary care
- High physician performance management
Jointly led hybrids

- Physician and joint hospital-physician led
- Some IDS involvement
- Moderate scope of services offered
- Include some post-acute
- Relatively low performance management
Figure 1a. ACO participation in physician performance management, % within cluster who responded “yes”

Source: A Taxonomy of Accountable Care Organizations, Center for Healthcare Organization and Innovation Research (CHOIR), School of Public Health, UC Berkeley, April 2014.
Figure 1b. ACO participation in payment reform strategies, % within cluster with ACO or ACO Provider Group level participation.

Source: A Taxonomy of Accountable Care Organizations, Center for Healthcare Organization and Innovation Research (CHOIR), School of Public Health, UC Berkeley, April 2014.
Appendix 2: Plot of discriminant function scores for each ACO, N=162

Correctly Classified:
- 93.8% of IDS ACOs
- 87.3% of physician-led ACOs
- 76.2% of hybrid ACOs

Source: A Taxonomy of Accountable Care Organizations, Center for Healthcare Organization and Innovation Research (CHOIR), School of Public Health, UC Berkeley, April 2014.
# Table 3: Criteria measures to evaluate the predictive validity of cluster solutions

<table>
<thead>
<tr>
<th>Measure</th>
<th>IDS</th>
<th>Physician-led</th>
<th>Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-sided risk, % yes**</td>
<td>65.3</td>
<td>14.3</td>
<td>20.4</td>
</tr>
<tr>
<td>Care management capabilities, mean (SD)*</td>
<td>5.4 (1.2)</td>
<td>4.8 (1.6)</td>
<td>4.7 (1.8)</td>
</tr>
<tr>
<td>Quality improvement capabilities, mean (SD)**</td>
<td>6.7 (1.0)</td>
<td>5.6 (1.9)</td>
<td>5.5 (1.8)</td>
</tr>
<tr>
<td>Health information technology capabilities, mean (SD)**</td>
<td>5.7 (1.4)</td>
<td>5.7 (1.8)</td>
<td>4.6 (2.0)</td>
</tr>
</tbody>
</table>

** denotes significance at the 0.01 level; * denotes significance at the 0.05 level; chi-squared test was used for two-sided risk; ANOVA was used for all other measures.

**Note:** Zeus: larger, integrated systems; Demeter: smaller, physician practices; Apollo: hybrid ACOs

**Source:** Mapping the Unicorn: A Taxonomy of Accountable Care Organizations, Center for Healthcare Organization and Innovation Research (CHOIR), School of Public Health, UC Berkeley, April 2014.
Limitations

- Exploratory – N=160 only

- Single informant respondent
  – but most knowledgeable
Summary

• ACOs can be meaningfully categorized

• Need for future replication as current ACOs evolve and new ACOs develop

“While there are clear differences... the taxonomy should not be viewed as hierarchical or sequential or necessarily as stages in development. Whether or not ACOs ‘pass through’ or migrate from one cluster category to another over time is an empirical question that can only be addressed with longitudinal data that also examines the cluster types in relation to triple-aim performance metrics.”
But what about population health?

How do we bridge the divide between health and health care?
The challenge is to move from a culture of sickness to a culture of health.

How do we create a market for health?
• Pay technology-enabled, team-based systems of care to keep people well.

• Requires **people** engagement, not just patient engagement

• Requires **community-wide population** focus, not just individual ACO or integrated delivery system focus
A Bold Proposal

CMS and other payers:

• Create a risk-adjusted population-wide health budget to be overseen by a community-wide entity tied to multi-year performance targets

Examples might include:

• Reduction in newly diagnosed diabetics
• Reduced infant mortality
• Reduced pre-term births
• Reduced obesity rates – children and adults
• Lower blood pressure for CHF Patients
• Reduced disability and work loss days due to illness
• Greater functional health status scores among samples of the population

Some Interest in California

Payment Reform Ideas

- Create Accountable Care Communities Focused on Population: 7.5
- Pilot Incentives in a Community to Link Delivery System and Community Efforts to Improve Health: 7.0
- Is your Organization Attempting to Link Patient Care with Private or Public Community Efforts to Improve Population Health?: Yes = 67%

Some Major Questions

1. Can they improve quality, contain cost growth and contribute to improved population health beyond capturing the “low hanging fruit”?

2. How fast can they spread across the country?

3. What other changes will be needed to encourage their growth?
   - Workforce
   - Regulatory
   - Antitrust reform

4. How does the country develop a “culture of health” and a “market for health” to replace the “culture of illness and “market for illness” that dominate our current system?
Have you seen this billboard yet?

We work to keep you out of bed.

VISIONARY HEALTH SYSTEM
Thank You

“Healthier Lives In A Safer World”