Accountable Care
New Models for payment and delivery that might promote quality and reduce costs

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The Dartmouth Institute for Health Policy and Clinical Practice

Variations in practice and spending
Origins

Science, December 14, 1973; Volume 182, pp 1102-08

Small Area Variations in Health Care Delivery

A population-based health information system can guide planning and regulatory decision-making.

John Wennberg and Alan Gittelsohn

Recent legislation has extended planning and regulatory authority in the health field in a number of important areas. The 1972 amendments to the impact of regulatory decisions on the equality of distribution of resources and dollars and the effectiveness of medical care services.
Per-capita Medicare Spending
Trends: 1992 to 2006

<table>
<thead>
<tr>
<th>City</th>
<th>Per-Capita Spending</th>
<th>Annual Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miami</td>
<td>$16,351</td>
<td>5.0</td>
</tr>
<tr>
<td>E. Long Island</td>
<td>$10,801</td>
<td>4.0</td>
</tr>
<tr>
<td>Boston</td>
<td>$9,526</td>
<td>3.0</td>
</tr>
<tr>
<td>San Francisco</td>
<td>$8,331</td>
<td>2.4</td>
</tr>
<tr>
<td>Salem, OR</td>
<td>$5,877</td>
<td>2.3</td>
</tr>
<tr>
<td>US Average</td>
<td>$8,304</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Annual savings now if Long Island had grown at San Francisco rate: $1 billion
Projected savings if US grew at San Francisco rate from now to 2023: $1.4 trillion

Source: Slowing the Growth of Health Care Spending: Lessons from Regional Variation

Variations in practice and spending
The Dartmouth Atlas

1. Spending and quality: what we know
2. Some current points of confusion
3. What's going on? What might we do?
4. Moving forward
Variations in spending and quality
*RWJF, National Institutes of Aging funded research*

**Health implications of regional variations in spending**

- Initial study: About 1 million Medicare beneficiaries with AML, colon cancer and hip fracture
- Compared content, quality and outcomes across high and low spending regions

<table>
<thead>
<tr>
<th>Per-capita Spending</th>
<th>Low (pale): $3,992</th>
<th>High (red): $6,304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference:</td>
<td>$2,312 (61% higher)</td>
<td></td>
</tr>
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</table>

(2) Baicker et al. Health Affairs web exclusives, Dec
(3) Fisher et al. Health Affairs web exclusives, Nov
(4) Skinner et al. Health Affairs web exclusives, Feb
(6) Fowler et al. JAMA; 1999; 2406-2412

Variations in spending and quality
*Where does the money go?*

**Effective Care: benefit clear for all**
- Reperfusion in 12 hours (Heart attack)
- Aspirin at admission (Heart attack)
- Mammogram, Women 65-69
- Pap Smear, Women 65+
- Pneumococcal Immunization (ever)

**Preference Sensitive: values matter**
- Total Hip Replacement
- Total Knee Replacement
- Back Surgery
- CABG following heart attack

**Supply sensitive: often avoidable care**
- Total Inpatient Days
- Inpatient Days in ICU or CCU
- Evaluation and Management (visits)
- Imaging
- Diagnostic Tests

If bar on this side higher spending regions get more

Ratio of rate in high spending to low spending regions
Variations in spending and quality
*What is the relationship between spending and quality?*

<table>
<thead>
<tr>
<th>Health Outcomes</th>
<th>Physician’s Perceptions</th>
<th>Patient-Perceived Quality</th>
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<tbody>
<tr>
<td>No gain in survival</td>
<td>No less sense that care is rationed</td>
<td></td>
</tr>
<tr>
<td>No better function</td>
<td>Worsen communication</td>
<td>Lower satisfaction with hospital care</td>
</tr>
<tr>
<td></td>
<td>Greater difficulty ensuring coordination</td>
<td>Worse access to primary care</td>
</tr>
<tr>
<td></td>
<td>Greater perception of scarcity</td>
<td>No less sense that care is rationed</td>
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(2) Baicker et al. Health Affairs web exclusives, October 7, 2004
(3) Fisher et al. Health Affairs web exclusives, Nov 16, 2005
(4) Skinner et al. Health Affairs web exclusives, Feb 7, 2006
(8) Yasaitis et al. Health Affairs; web exclusive, May 21, 2009
Variations in spending and quality

What is the relationship between spending and quality?

EXHIBIT 5
Percentile Ranking And Spending For Individual Hospitals In New York (Manhattan And The Bronx) And Los Angeles, 2004-2007

1. Spending and quality: what we know
2. Some current points of confusion

The Dartmouth Atlas
Some current points of confusion

**Look forward or look back? It doesn’t matter**

End-of-life spending vs average one-year risk adjusted spending for AMI at 144 U.S. hospitals with at least 200 patients (2001-2005).


Association between look forward treatment intensity measure and look back intensity (end-of-life patients only) in Pennsylvania hospitals.

Barnato et al Med Care 2009;47: 1098–1105

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**Some current points of confusion**

**Poverty**

Across large U.S. hospitals, hospital use (and spending, not shown) varies by over two fold for both low income and high income beneficiaries.

Systems that use the hospital as site of care for high income patients do the same for their low income patients.

Wennberg, Skinner. Forthcoming
Some current points of confusion
Poverty, Prices

Analysis compared unadjusted and price-adjusted per-capita spending across all U.S. HRRs.

Slight reduction in magnitude of variation.

Medical education and DSH payments were important in a few areas (notably NYC).

Gottlieb et al. Health Affairs 2010
published online, January 28.

Some current points of confusion
Poverty, Prices, Health

Health is the most important determinant of spending

Sutherland, Skinner, Fisher. NEJM 2009; 366:1227
Understanding variations
Not “either-or”, rather “both-and”

**Some differences are due to forces beyond providers control**
- Poverty – poor patients may have inadequate social supports at home
- Health status – some providers and regions have sicker patients
- Prices differ across regions
- Academic missions are variably subsidized through current payments

**Dramatic differences in utilization remain**
- Across physicians, across care systems, across regions
- Higher use of hospital as site of care (admissions and readmissions)
- More frequent discretionary physician services

High cost imaging rates, PCPs in a single practice at Partners
May 20, 2008 Presentation at Federal Trade Commission
Tom Lee, MD (Partners Healthcare System) (with permission)

Variations in practice and spending
The Dartmouth Atlas

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3. What’s going on? What might we do?
What’s going on?
Some general attributes of U.S. healthcare

Assumption that more is better

Advertising by Academic Medical Centers

The more you know about Uterine Fibroids the better you’ll feel.

Variations in spending
What’s going on? Exploring causes of regional variations

Patient Demand

Malpractice

Little difference

Less than 10% of difference
Variations in spending
What’s going on? Exploring causes of regional variations

Patient Demand
Malpractice
Supply & payment
Powerful influence

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What's going on? Exploring causes of regional variations

Patient Demand
Little difference

Malpractice
Less than 10% of difference

Supply & payment
Powerful influence
Explains less than 50% of difference

What's going on?
The role of clinical judgment

Evidence-based decisions:
Doctors sometimes disagreed—but was unrelated to regional differences in spending

Gray area decisions (more judgment required):
For a patient with well-controlled high blood pressure and no other medical problems, when would you schedule the next visit?

Other guideline free decisions:
Referral to specialist for reflux, angina
Diagnostic testing for cardiac ultrasound, chest CT
Hospital admission for angina, heart failure
Admission to ICU for heart failure
Referral to palliative care for heart failure
What’s going on?
Case studies beginning to shed further light

2006 Spending   92-06 Growth
McAllen $14,946   8.3%
La Crosse       $5,812   3.9%

What’s going on?
Case studies beginning to shed some light

“Here … a medical community came to treat patients the way subprime mortgage lenders treated home buyers: as profit centers.”

Atul Gawande

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“…a culture that focuses on the wellbeing of the community, not just the financial health of our system.”

Jeff Thompson, MD
CEO Gunderson-Lutheran
La Crosse, WI
Some principles to guide reform
Aims, Accountability, Integration, Incentives

**Underlying problem**

**Confusion** about aims – what we’re trying to produce

**Absent or poor data** leaves practice unexamined and public assuming that more is always better.

**Flawed conceptual model.** Health is produced only by individual actions of “good” clinicians, working hard.

**Wrong incentives** reinforce model, reward fragmentation, induce more care and entrepreneurial behavior.

**Key principles**

**Clarify aims:** Better health, better care lower costs – for patients and communities

**Better information** that engages physicians, supports improvement; informs consumers

**New model: It’s the system.** Establish organizations accountable for aims and capable of redesigning practice and managing capacity

**Rethink our incentives:** Realign incentives – both financial and professional – with aims.

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The new policy environment

Clarifying aims and performance measures

Emerging alignment on aims: National Priorities Partners

Better health: improving population health
Better care: improving safety, reliability, coordination and patient engagement
Lower costs: eliminating overuse

Performance measurement – the critical lever

National Quality Forum “Episode Measurement Framework”

Core issue: how did the patient do over the relevant time-course?

Value is multidimensional: outcomes, risks, quality, costs

Requires organizational accountability for patients over time

The new policy environment

The value index: a well-intentioned, but not-quite-right approach

The Value Index

Intent – improve value of care
Approach: create simple regional score of quality and per-capita costs
High quality, low cost: fees are increased on each service
Low quality, high cost: fees are decreased on each service

The problem

Punishes good providers in poorly performing regions (and vice-versa)
Response of those with cuts? Increase volume of positive-margin services

We need to help all providers improve
New Models of Care and Payment

Episode (bundled) payments

**Approach:**
- Single payment creates incentive for providers to work together to improve care and reduce costs within the episode
- Examples: inpatient and post acute care; major elective procedures

**Current status and evidence**
- Efforts to develop and test approaches underway: Geisinger – Provencare
- Not much evidence

**Challenges:**
- Requires an organization to either accept or distribute payments;
- Quality and outcome measures available, but difficult to deploy;
- May not reduce overall costs: *incentive remains to increase number of episodes*

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New Models of Care and Payment

Patient Centered Medical Home

**Approach:**
- Practice redesign to support core functions of primary care: enhanced access; pro-active care management of population; team-based care
- Payment reform to support currently non-reimbursed activities

**Current status:**
- numerous pilots underway,
  - **Group Health:** better care experience (including md-pt interaction, informed choice, access; activation, goal setting); technical quality; reduced ER & hospital use;
    - year 2 (unpublished) – reduced total costs; much lower staff burnout

**Challenges**
- Responsibility for coordination lies entirely with primary care practice
- Impact on costs uncertain
  - (1) No explicit incentives or accountability for overall costs
  - (2) Community costs may not be affected. (specialists and hospitals unlikely to allow incomes to fall)

New Models of Care and Payment
Accountable Care Organizations

Theory
Establish provider organizations that can effectively manage the full continuum of care as a real or virtually integrated local delivery system
Performance measurement – to ensure focus on demonstrably improving care and lowering costs
Payment reform: establish target spending levels; shared savings – under fee-for-service or partial capitation; no beneficiary “lock-in”.

Potential ACOs
Integrated delivery systems – academic medical centers
Hospitals with aligned (or owned) physician practices
Physician networks (e.g. Independent Practice Associations)
Community networks / community foundations (putting both hospitals and physicians under community governance with common aims)

Would entail little disruption of current referral patterns

Fisher et al.  Creating Accountable Care Organizations, Health Affairs 26(1) 2007:w44-w57.
New Models of Care and Payment
Accountable Care Organizations

Evidence limited but promising
Physician Group Practice demonstration – mixed results
Where critical mass of payers engaged – more promising results

**Geisinger Health System**: (1) Medicare spending fell by 15% relative to US (92-96) (2) Teachers given $7,000 raise (over 3 years)

ACOs only reform approach that provides accountability for total costs – and incentives to eliminate unneeded capacity (and share in savings)

National interest, federal support likely, payers engaged
Legislation includes ACOs as national program (Senate) or pilots (House)
Several states moving forward: MA, VT, NC (network)
Brookings-Dartmouth collaborative – strong interest

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New Models of Care and Payment
Accountable Care Organizations: Initial Pilot Sites

- **Carilion Clinic**
  - Roanoke, VA
  - ~900 Providers
  - 60,000 Medicare Patients Assigned
- **Norton Healthcare**
  - Louisville, KY
  - ~400 Providers
  - 30,000 Medicare Patients Assigned
- **Tucson Medical Center**
  - Tucson, AZ
  - ~80 Providers
  - 10,000 Medicare Patients Assigned

<table>
<thead>
<tr>
<th>Large Group</th>
<th>Small Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Competitive Environment</td>
<td>Highly Competitive Environment</td>
</tr>
<tr>
<td>Fully Integrated System</td>
<td>Multiple Independent Provider Groups</td>
</tr>
</tbody>
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Fisher et al. Creating Accountable Care Organizations, Health Affairs 26(1) 2007:w44-w57.
Fostering ACO development
Consider a pathway toward integration -- stronger incentives and greater accountability across “Levels” of ACOs

<table>
<thead>
<tr>
<th>Level One</th>
<th>Level Two</th>
<th>Level Three</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational Structure</strong></td>
<td><strong>Performance Measures</strong></td>
<td><strong>Payment Model</strong></td>
</tr>
<tr>
<td>Legal Entity</td>
<td>Grievance process</td>
<td>Greater reserves</td>
</tr>
<tr>
<td>Defined PCP Network</td>
<td>Reserve requirements</td>
<td>Stringent reporting</td>
</tr>
<tr>
<td>Reports Measures</td>
<td>Financial Reporting</td>
<td></td>
</tr>
<tr>
<td>Process of care (e.g.)</td>
<td>Care experience (e.g.)</td>
<td>Health outcomes (e.g.)</td>
</tr>
<tr>
<td>Diabetes testing</td>
<td>Referrals done well</td>
<td>Functional status</td>
</tr>
<tr>
<td>Preventive services</td>
<td>Understood MD</td>
<td>Health risks reduced</td>
</tr>
<tr>
<td>No Risk</td>
<td>Some risk</td>
<td>Partial capitation</td>
</tr>
<tr>
<td>Shared savings</td>
<td>Shared savings</td>
<td>Greater gainsharing</td>
</tr>
<tr>
<td>Modest gainsharing</td>
<td>Greater gainsharing</td>
<td></td>
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</table>

Fostering ACO development
Achieving “Accountable Care” will require coordinated effort

**Likely to require:**
- Technical support
  - For ACO model implementation
  - For clinical transformation
- Public-private collaborative
  - To coordinate local, state, federal initiatives
  - To advance standards on measures
  - To identify barriers and address them
Moving forward
Playing value-based payment forward

**ACO’s seek:**
To improve care management (e.g. home-based care, e-health, etc.)
To reduce costs compared to alternative: Cost-effectiveness considered
To align care with patients and caregivers’ values
To make careful “buy vs build” decisions

**Referral centers should seek:**
To demonstrate value (and deliver high quality / low cost episodes)
Capture market share for wanted, needed episodes
To manage their own primary care populations as ACOs

**Implications for policy makers**
Federal legislation would help: Medicare ACO support and Innovation Center
States have important role: financial oversight; support for model
Support for community level discussions….

Moving forward
Local leadership and engagement likely to be important

**“How do they do that?” conference**

| Everett, WA | Portland, ME |
| Sacramento, CA | Sayre, PA |
| La Crosse, WI | Richmond, VA |
| Cedar Rapids, IA | Asheville, NC |
| Temple, TX | Tallahassee, FL |

Lighter colors = lower spending

**Common themes**
Shared aims, accountable to community
Strong foundation of primary care
Physician engagement as leaders
Savings through reduced use of hospital
Use of data to drive change
Moving forward

2. Local leadership and engagement likely to be important

“How do they do that?” conference

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Lighter colors = lower spending

Common themes

- Shared aims, accountable to community
- Physician engagement as leaders
- Strong foundation of primary care
- Savings through reduced use of hospital
- Use of data to drive change
- High self-efficacy, excited about work

“There, there is again—the invisible hand of the marketplace giving us the finger.”
Moving forward
Research on “the commons” also suggests local leadership critical

A key challenge: overcome “The tragedy of the commons”

Remedies widely assumed to require government intervention
  Strict regulation of the common resource
  Creation of private property rights

A third way?
“Instead of presuming that the individuals sharing a commons are inevitably caught in a trap from which they cannot escape, I argue that the capacity of individuals to extricate themselves from various types of dilemma situations varies from situation to situation. ...

Why have some efforts to solve commons problems failed, while others have succeeded?”

Elinor Ostrom, p 14, Governing the Commons

Moving forward
Research on “the commons” also suggests local leadership critical

Design principles for managing “common pool resources”
Overarching goal: sustainability

(1) Clearly defined boundaries
(2) Rules reflect local conditions and local knowledge
(3) “Collective choice” – those affected determine and modify rules
(4) Monitoring of performance
(5) Graduated sanctions
(6) Conflict resolution mechanisms (e.g. courts to enforce contracts)
(7) Right to self-organize is recognized by authorities
(8) Nested enterprises
Moving forward
What might be done locally?

**Create regional and local structures to manage change**
- Regional multi-stakeholder coalition to guide efforts
- Organize providers into ACOs (integrated or networked)
- Establish mechanisms to ensure **payers** are all engaged

**Establish clear aims**
- Better care, better health, lower costs (all three, not just one or two)
- Don Berwick’s suggestion: a **10% reduction** in per-capita costs

**Use new payment models to help achieve the aims**
- ACOs represent a “collective choice” mechanism for managing commons, through internal monitoring, provider rewards, contractual support

**Be creative, be bold** (think about supply-sensitive care)
- Reduce hospital capacity (but help hospitals meet bond payments)
- “Cash for clunkers”: buy out other unneeded capacity
- State has major role in facilitating discussion (avoiding antitrust concerns)