Rethinking Health Care: 
Part 2: insights from the Dartmouth Atlas Project
Where are we now?

*More heat than light*

**Public debate on health care reform**
- **Coverage:** Public option = who should pay the bills to providers?
- **Costs:** Lower cost care = rationing
- **Quality:** Discussion of patients preferences = death panels

**The Titanic is sinking**
- **Costs:** Cost of family coverage will double ($12,298 to $23,842) by 2020; Medicare Trust Fund runs dry in 2017
- **Quality:** Looming collapse of primary care; terrible care coordination
- **Integrity** Of health professions, academic medicine, and hospital industry

*Can we do more than rearrange the deck chairs?*
Variations in practice and spending

Origins

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

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

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
2005, Age, sex, race adjusted (not adjusted for price)

Miami $14,359
McAllen, TX $12,587
Los Angeles $10,989
Boston $9,126
Pittsburgh $8,603
Orlando $8,313
St. Louis $7,942
Phoenix $7,505
Seattle $6,862
Minneapolis $6,442
Des Moines $5,761
Salem, OR $5,358
Per-capita Medicare Spending Trends: 1992 to 2006

### Annual Growth Rate

<table>
<thead>
<tr>
<th>Location</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 if Long Island had grown at San Francisco rate:** $1 billion

**Projected savings if US grew at San Francisco rate from now to 2023:** $1.42 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. What’s going on? What might we do?
3. The new policy environment
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 AMI, colon cancer and hip fracture
- Compared content, quality and outcomes across high and low spending regions

**Per-capita Spending**

| Low (pale) | $3,992 |
| High (red) | $6,304 |

Difference: $2,312 (61% higher)

(2) Baicker et al. Health Affairs web exclusives, October 7, 2004
(3) Fisher et al. Health Affairs, web exclusives, November 16, 2005
(4) Skinner et al. Health Affairs web exclusives, February 7, 2006
(6) Fowler et al. JAMA: 299: 2406-2412
What do high spending regions get?
Use Rates in High vs Low

Effective Care: *technical quality*
- Reperfusion in 12 hours (Heart attack)

Preference Sensitive Care: *elective surgery*

Supply sensitive services: *often avoidable care*

Rate is lower in high spending regions

Ratio of rate in high spending to low spending regions

0.5  1.00  1.5  2.0  2.5
What do high spending regions get?
Use Rates in High vs Low

Effective Care: *technical quality*
Reperfusion in 12 hours (Heart attack)

Preference Sensitive Care: *elective surgery*

Supply sensitive services: *often avoidable care*
What do high spending regions get?
Use Rates in High vs Low

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

**Preference Sensitive Care: elective surgery**

**Supply sensitive services: often avoidable care**

Ratio of rate in high spending to low spending regions
Association between Medicare spending and quality ranking – U.S. States

Baicker and Chandra, Health Affairs, web exclusives
What do high spending regions get?
Use Rates in High vs Low

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

**Preference Sensitive Care: elective surgery**
- Total Hip Replacement
- Total Knee Replacement
- Back Surgery
- CABG following heart attack

**Supply sensitive services: often avoidable care**
What do high spending regions get?
Use Rates in High vs Low

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

**Preference Sensitive Care: elective surgery**
- Total Hip Replacement
- Total Knee Replacement
- Back Surgery
- CABG following heart attack

**Supply sensitive services: often avoidable care**

Ratio of rate in high spending to low spending regions
What do high spending regions get?
Use Rates in High vs Low

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

Preference Sensitive Care: *elective surgery*
- Total Hip Replacement
- Total Knee Replacement
- Back Surgery
- CABG following heart attack

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

If bar is to right of dotted line, rate is higher in high spending regions
The paradox of plenty
High spending compared to low spending regions

Health Outcomes
- No gain in survival
- No better function

Physician’s Perceptions
- Worse communication
- Greater difficulty ensuring coordination
- Greater perception of scarcity

Patient-Perceived Quality
- Lower satisfaction with hospital care
- Worse access to primary care
- No less sense that care is rationed

(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
(6) Fowler et al. JAMA: 299: 2406-2412
Averages hide variation – and opportunities to learn
Performance on cost and quality are essentially uncorrelated
Averages hide variation – and opportunities to learn
One year risk-adjusted mortality and standardized costs, US HRRs

For AMI, colon cancer and hip fracture -- one year follow-up

<table>
<thead>
<tr>
<th>Potential Benchmark</th>
<th>Lives saved per year</th>
<th>Medicare savings (millions)</th>
<th>Lives saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest performance</td>
<td></td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Low performance</td>
<td></td>
<td>$56</td>
<td>&lt; 25</td>
</tr>
<tr>
<td>Middling performance</td>
<td></td>
<td>$194</td>
<td>1,402</td>
</tr>
<tr>
<td>High performance</td>
<td></td>
<td>$643</td>
<td>3,821</td>
</tr>
<tr>
<td>Highest performance</td>
<td></td>
<td>$889</td>
<td>8,411</td>
</tr>
</tbody>
</table>

Potential Benchmark number patients in each group
- Lowest performance: 43,833
- Low performance: 99,469
- Middling performance: 200,801
- High performance: 89,533
- Highest performance: 49,929

Dollars saved per year (millions)

Physician and Hospital Services
The paradox of plenty
Pop Quiz….

If we cut spending so that all U.S. regions were receiving the same per-capita amount as the lowest spending regions, which of the following would apply?

1. The Medicare Trust Fund might survive a few years past its predicted collapse in 2017 (the year I become eligible).

2. We could send a third of the U.S. healthcare workforce to Africa and improve the health of both continents.

3. We would cause harm to providers in high spending regions – and thus – to their patients.

4. All of the above.
Variations in practice and spending

The Dartmouth Atlas

1. Spending and Quality – what we know

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

Assumption that more is better
What’s going on?
Some general attributes of U.S. healthcare

Assumption that more is better

Inadequate information on risks and benefits

VIOXX PROVIDES POWERFUL 24-HOUR RELIEF OF ARTHRITIS

“The clams were the only ones that benefited from my arthritis. Sorry guys, I’m back.”
What’s going on?
Some general attributes of U.S. healthcare

Assumption that more is better

Inadequate information on risks and benefits

Growing tension between science and professionalism -- and -- market approach (health care as a commodity)

Larson et al. Advertising by Academic Medical Centers; Arch Int Med: 2005; 165: 645-51
What’s going on?

*Research on causes of regional variations*
What’s going on?

*Research on causes of regional variations*

- **Patient Preference**
  - Slight preference for specialists in high specialist regions
  - No difference in wish for test MD says not needed
  - No difference in wish for aggressive EOL care
What’s going on?

*Research on causes of regional variations*

**Patient Preference**
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

**Malpractice Environment**
- Explains less than 10% state differences in spending
What’s going on?
*Research on causes of regional variations*

**Patient Preference**
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

**Malpractice Environment**
- Explains less than 10% state differences in spending

**Capacity & Payment System**
- Capacity is strongly correlated, but explains less than 50%
- Payment system ensures that all stay busy

---

**What's going on?**

Research on causes of regional variations

**Cardiologists per 100,000 Residents** vs **Cardiologist Visits per 1,000 Medicare Enrollees**

$R^2 = 0.49$
What’s going on?

*Research on causes of regional variations*

**Patient Preference**
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

**Malpractice Environment**
- Explains less than 10% state differences in spending

**Capacity & Payment System**
- Capacity is strongly correlated, but explains less than 50%
- Payment system ensures that all stay busy

---

**Percutaneous Coronary Interventions**
- Age-sex-race adjusted rate per 1000 enrollees in 2003

---

![Graph showing variation in PCI discharges per 1,000 Medicare enrollees (2003)](image)
What’s going on?

Research on causes of regional variations

- Patient Preference: Slight preference for specialists in high specialist regions
- Malpractice Environment: Explains less than 10%
- Capacity & Payment System: No difference in wish for test MD says not needed, No difference in wish for aggressive EOL care

![Graph showing PCI rate per 1,000 Medicare enrollees from 1992 to 2003 for Elyria HRR and Ohio average.]

<table>
<thead>
<tr>
<th>Year</th>
<th>Elyria HRR</th>
<th>Ohio average</th>
<th>Number of procedures in excess of OH average</th>
<th>U.S rank in year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>9.1</td>
<td>5.0</td>
<td>117</td>
<td>11</td>
</tr>
<tr>
<td>1993</td>
<td>9.1</td>
<td>5.3</td>
<td>111</td>
<td>16</td>
</tr>
<tr>
<td>1994</td>
<td>12.3</td>
<td>6.2</td>
<td>180</td>
<td>5</td>
</tr>
<tr>
<td>1995</td>
<td>14.8</td>
<td>6.6</td>
<td>245</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>18.9</td>
<td>7.5</td>
<td>336</td>
<td>1</td>
</tr>
<tr>
<td>1997</td>
<td>20.8</td>
<td>8.4</td>
<td>344</td>
<td>2</td>
</tr>
<tr>
<td>1998</td>
<td>23.8</td>
<td>9.0</td>
<td>368</td>
<td>1</td>
</tr>
<tr>
<td>1999</td>
<td>22.7</td>
<td>9.5</td>
<td>340</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>26.9</td>
<td>10.3</td>
<td>432</td>
<td>1</td>
</tr>
<tr>
<td>2001</td>
<td>29.1</td>
<td>11.2</td>
<td>479</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>33.9</td>
<td>12.0</td>
<td>605</td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>42.0</td>
<td>13.5</td>
<td>810</td>
<td>1</td>
</tr>
</tbody>
</table>
What’s going on?
Research on causes of regional variations

- Patient Preference
  - Slight preference for specialists in high specialist regions
- Malpractice Environment
  - Explains less than 10%
- Capacity & Payment System
  - Capacity is strongly correlated, but explains less than 50%
  - Payment system ensures that all stay busy

New York Times
August 18, 2006

Heart Procedure Is Off the Charts in an Ohio City

Dr. Charles D. O'Shaughnessy of North Ohio Heart Center does an angioplasty at EMH Regional Medical Center in Elyria, Ohio, with Susan Croston, a radiology technologist.

By REED ABELSON
Published: August 18, 2006
What’s going on?
*Research on causes of regional variations*

- **Patient Preference**
  - Slight preference for specialists in high specialist regions
  - No difference in wish for test MD says not needed
  - No difference in wish for aggressive EOL care

- **Malpractice Environment**
  - Explains less than 10% state differences in spending

- **Capacity & Payment System**
  - Payment system ensures that all stay busy
  - Capacity is strongly correlated, *but explains less than 50%*
What’s going on?

Research on causes of regional variations

Patient Preference
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

Malpractice Environment
- Explains less than 10% state differences in spending

Capacity & Payment System
- Payment system ensures that all stay busy
- Capacity is strong correlated, but explains less than 50%

Clinical Judgment
- No difference in decisions with strong evidence
What’s going on?
Research on causes of regional variations

For a patient with well-controlled hypertension and no other medical problems, when would you schedule the next visit?

Other “guideline free” decisions used in intensity index
- Referral to specialist: reflux, angina
- Diagnostic testing: cardiac ultrasound, chest CT
- Hospital admission: angina, heart failure
- Admission to ICU: heart failure
- Referral to palliative care: heart failure
What’s going on?

Research on causes of regional variations

EXHIBIT 5
Association Between Physician Practice Intensity And Local Health Care Spending

Summary intensity score (mean)

0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3

10,000 12,500 15,000 17,500 20,000
Local spending (mean dollars)
What’s going on?
Research on causes of regional variations

Patient Preference
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

Malpractice Environment
- Explains less than 10% state differences in spending

Capacity & Payment System
- Payment system ensures that all stay busy
- Capacity is strongly correlated, but explains less than 50%

Clinical Judgment
- No difference in decisions with strong evidence
- More likely to intervene in gray areas

What about the training environment?
Step 1: Develop a measure of conservative practice

Use existing questions from the American Board of Internal Medicine certifying exam to measure candidates’ ability to practice conservatively when appropriate.

A 40-year-old non-smoking woman has had a URI with a productive cough, including 2 episodes of hemoptysis. Now, one week later, she is starting to feel better, and her exam and CXR are unremarkable. Which of the following should you recommend now?

- A. Fiberoptic bronchoscopy
- B. Computed tomography of the chest
- C. Sputum cytology
- D. Indirect laryngoscopy
- E. Observation only
The training environment and trainees’ performance

*Methods overview*

**Step 1: Develop a measure of conservative practice**

Use existing questions from the American Board of Internal Medicine certifying exam to measure candidates’ ability to practice conservatively when appropriate.

2002 ABIM exam

- 327 questions

149 Other Management

146 Knowledge

32 Conservative Management

- taking no action/observation (16)
- discontinuing a therapy (5)
- choosing the least costly action (11)

Correct response
The training environment and trainees’ performance

Methods overview

Step 1: Develop a measure of conservative practice

Use existing questions from the American Board of Internal Medicine certifying exam to measure candidates’ ability to practice conservatively when appropriate.

Step 2: Correlate measure with health care intensity in area of the training program

Compare scores of residents trained in programs in regions of low and high intensity.

Stratify results according to quartile of performance on knowledge scores
Results

Training program intensity vs. conservative management score

Test for Trend

P = 0.002
Results

Training program intensity vs. conservative management score

<table>
<thead>
<tr>
<th>Quintile of intensity (visits/last 6 months of life)</th>
<th>Mean Conservative Management Score (percentile)</th>
<th>Test for Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest (1)</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>Highest (5)</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>46%</td>
<td></td>
</tr>
</tbody>
</table>

Top
- 
P = 0.51

Second
- 
P < 0.001

Third
- 
P = 0.008

Bottom
- 
P = 0.005
What’s going on?

Research on causes of regional variations

Patient Preference
- Slight preference for specialists in high specialist regions
- No difference in wish for test MD says not needed
- No difference in wish for aggressive EOL care

Malpractice Environment
- Explains less than 10% state differences in spending

Capacity & Payment System
- Payment system ensures that all stay busy
- Capacity is strongly correlated, but explains less than 50%

Clinical Judgment
- No difference in decisions with strong evidence
- More likely to intervene in gray areas
- Trainees more likely to make overuse errors

(1) Pritchard et al. J Am Geriatric Society; 46:1242-1250, 199
(2) Anthony et al, under review
(4) Baicker, Chandra, NBER Working Paper W10709
What’s going on?
Case studies beginning to shed further light

<table>
<thead>
<tr>
<th></th>
<th>2006 Spending</th>
<th>92-06 Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllen</td>
<td>$14,946</td>
<td>8.3%</td>
</tr>
<tr>
<td>La Crosse</td>
<td>$5,812</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th></th>
<th>2006 Spending</th>
<th>92-06 Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllen</td>
<td>$14,946</td>
<td>8.3%</td>
</tr>
<tr>
<td>La Crosse</td>
<td>$5,812</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th></th>
<th>2006 Spending</th>
<th>92-06 Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllen</td>
<td>$14,946</td>
<td>8.3%</td>
</tr>
<tr>
<td>La Crosse</td>
<td>$5,812</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

“…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
What’s going on?

An interaction: capacity - payment - culture

Evidence is an important -- but limited -- influence on clinical decision-making.
What’s going on?

An interaction: capacity - payment - culture

Evidence is an important -- but limited -- influence on clinical decision-making.

Physicians rarely get feedback on judgment calls.

May 29, 2008 Presentation at Federal Trade Commission
Tom Lee, MD (Partners Healthcare System) (used with permission)
What’s going on?

An interaction:  
capacity - payment - culture

Evidence is an important -- but limited -- influence on clinical decision-making.

Physicians rarely get feedback on judgment calls.

Physicians practice within a local context that profoundly (but invisibly) influences their decision-making.

**Hospitals** must attract enough profitable patients to maintain their margins: they expand – and recruit accordingly. A medical arms race.

**Specialist** availability increases referrals

**Local social norms** also contribute

The public welcomes more medical care. So…. supply drives demand.

---

**Policy Environment**
(e.g. payment system)

**Local Organizational Context**
(e.g. capacity - culture)

**Clinical Evidence**
Professionalism

**Physician - Patient Encounter**
Some principles to guide reform

**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. 

*Choice: spend more or ration*

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

**Key principles**

**Clarify aims:** Better health, better care lower costs

**Better information** that engages physicians, creates tension for change, supports improvement; informs consumers

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

*Better choice: redesign – not rationing*

**Rethink our incentives:** Realign incentives – both financial and professional – with aims.
Variations in practice and spending

*The Dartmouth Atlas*

1. Spending and Quality – what we know
2. What’s going on? What might we do?
3. The new policy environment
The new policy environment
Clarifying aims -- and performance measures

Emerging alignment on aims

National Priorities Partners
  Improving population health
  Improving safety, reliability and coordination of care
  Engaging patients in managing their care and making informed decisions
  Eliminating overuse

Performance measurement – a critical lever

National Quality Forum “Episode Measurement Framework”

Key notions

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

Value is multidimensional: outcomes, risks, quality, costs

Requires organizational accountability – over time
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 still largely unavailable;
- May not reduce overall costs: incentive remains to increase number of episodes
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 improvement entirely with primary care practice
- Impact on costs under fee-for-service 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)

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 (mostly Medicare only)
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

Several states moving forward: MA, VT, NC (network)
Brookings-Dartmouth collaborative underway

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

Large Group → Small Group

Low Competitive Environment → Highly Competitive Environment

Fully Integrated System → Multiple Independent Provider Groups

Fisher et al. Creating Accountable Care Organizations, Health Affairs 26(1) 2007:w44-w57.
Variations in practice and spending

*The Dartmouth Atlas*

1. Spending and Quality – what we know
2. What’s going on? What might we do?
3. The new policy environment
4. Moving forward
Moving forward
1. Elements to facilitate successful reform are in place or becoming clear

Federal legislation offers promise

- $10 billion (over ten years) to test and disseminate delivery system innovations (2012)
- Medical home, bundled payment, ACO program (Senate) or pilots (House)

Emerging evidence on “re-engineering”

- Patient-centered medical home (PCMH) pilots
- Shared EHRs; e-communications (Kaiser, Group Health)
- Population based chronic disease management: new roles for specialists
  - Diabetes care: (Intermountain);
  - Chronic renal disease (Kaiser)
- Cleveland clinic -- re-engineering clinical processes
  - Has hired 40 process engineers; 4 to 1 Return on Investment
Moving forward

2. 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

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

Lighter colors = lower spending
Moving forward

2. Local leadership and engagement likely to be important

“There, there it is again—the invisible hand of the marketplace giving us the finger.”
Moving forward

2. 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
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