CECS
Center for the
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Clinical Sciences

Variations in spending and quality

The paradox of plenty -- and what we might do about it

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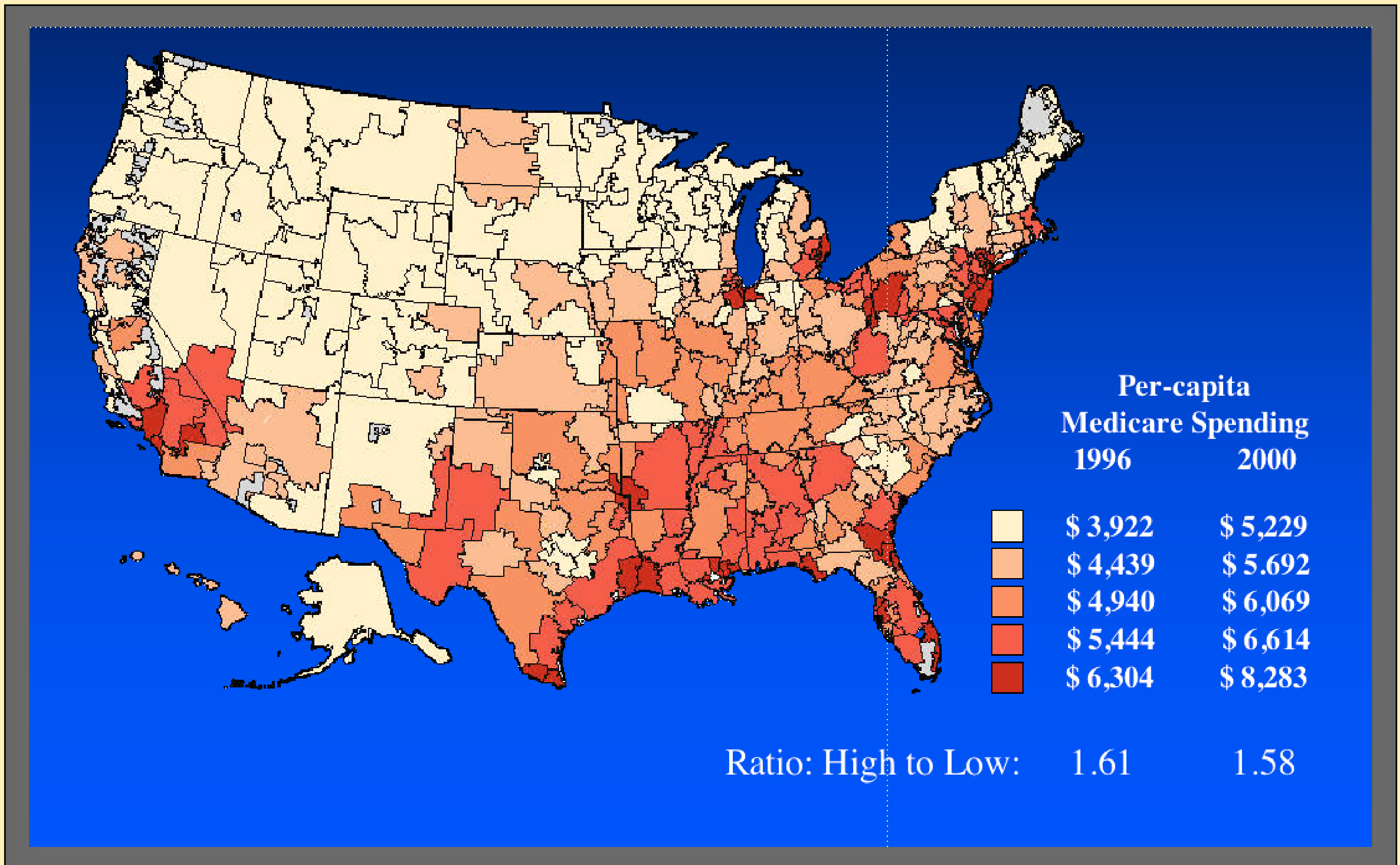
Variations in spending

across U.S. Regions



The paradox of plenty

What do higher spending regions -- and systems -- get?

Resource levels[1] — *More hospital beds per capita (32%)*
More medical specialists (65%) and internists (75%)

Content / Quality of Care[1,2] — *Technical quality worse*
No more major elective surgery

Supply-sensitive services *More hospital stays, visits, specialist use, tests, procedures*

Health Outcomes[1,2] — *Slightly higher mortality*
No better function

Physician-reported quality[5] — *Worse communication among physicians*
Greater difficulty ensuring continuity of care
Greater difficulty providing high quality care

Patient-reported quality[1,3] — *Lower satisfaction with hospital care*
Worse access to primary care

Trends over time[4] — *Lower gains in survival (following AMI)*

Supply-sensitive services *Greater growth in per-capita resource use*

(1) Ann Intern Med: 2003; 138: 273-298
(2) Health Affairs web exclusives, October 7, 2004
(3) Health Affairs, web exclusives, Nov 16, 2005
(4) Health Affairs web exclusives, Feb 7, 2006
(5) Ann Intern Med: 2006; 144: 641-649

What's going on?

What explains the differences in practice?

Patient preferences -- can't explain the differences observed

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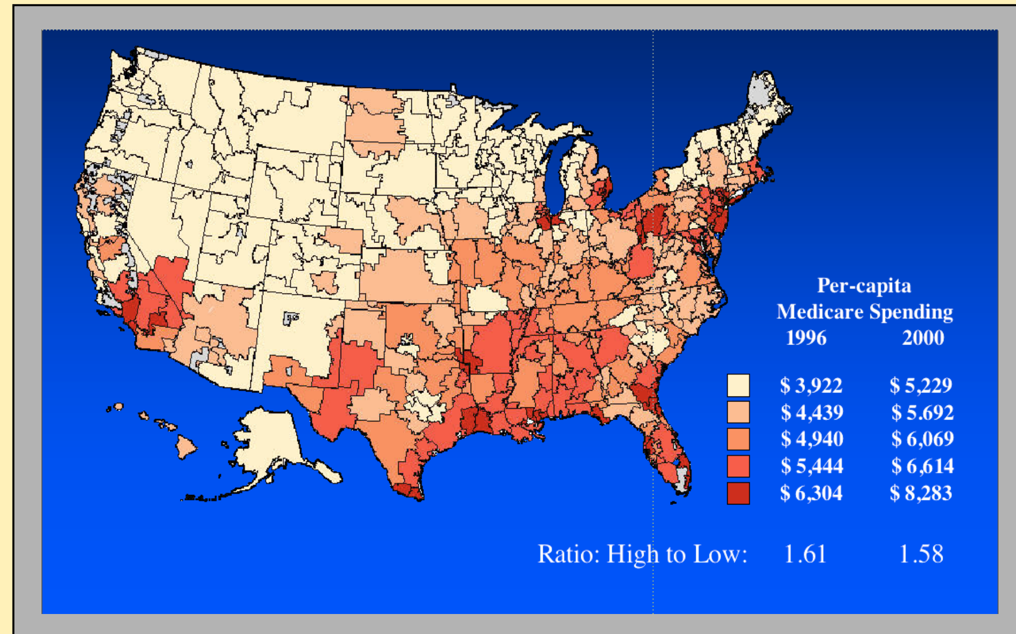
Capacity and payment -- are important drivers



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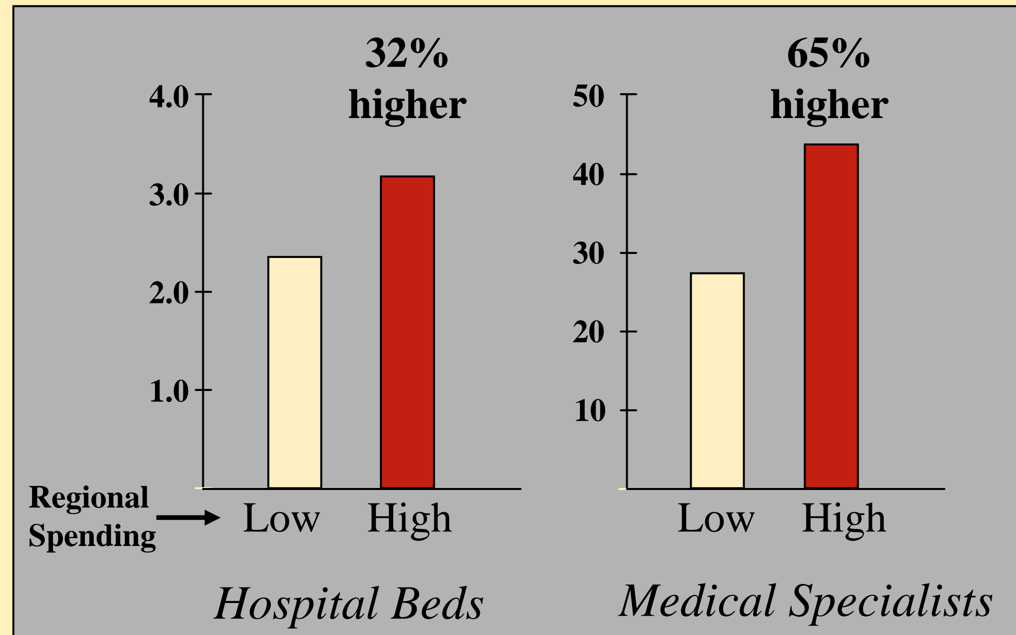

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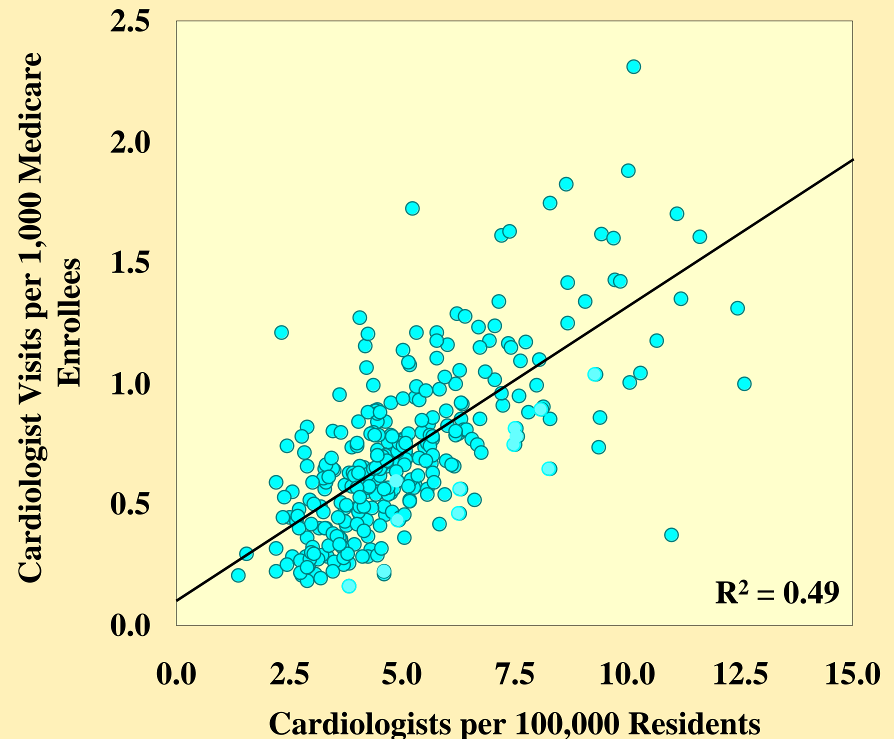
Capacity and payment -- are important drivers

Whatever capacity is in place will be fully utilized



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Capacity and payment -- are important drivers

Clinical judgment -- in the gray areas -- is critical

Average percent of patients for whom physicians would recommend the specific intervention across regions of increasing spending

	Spending Low Q1	Spending High Q5	Trend?
Cardiology referral for angina and +ETT	91	93	**ns**
Oral agent for isolated elevated cholesterol	44	53	↑
Urology referral for mild BPH	23	32	↑
MRI for back pain and new left foot drop	69	82	↑
PSA test for 60 year old white male	68	78	↑
Recommend office visit for vaginitis	45	57	↑

Sirovich *Archives of Internal Medicine.* 165(19):2252-6, 2005 Oct 24

Likely diagnosis

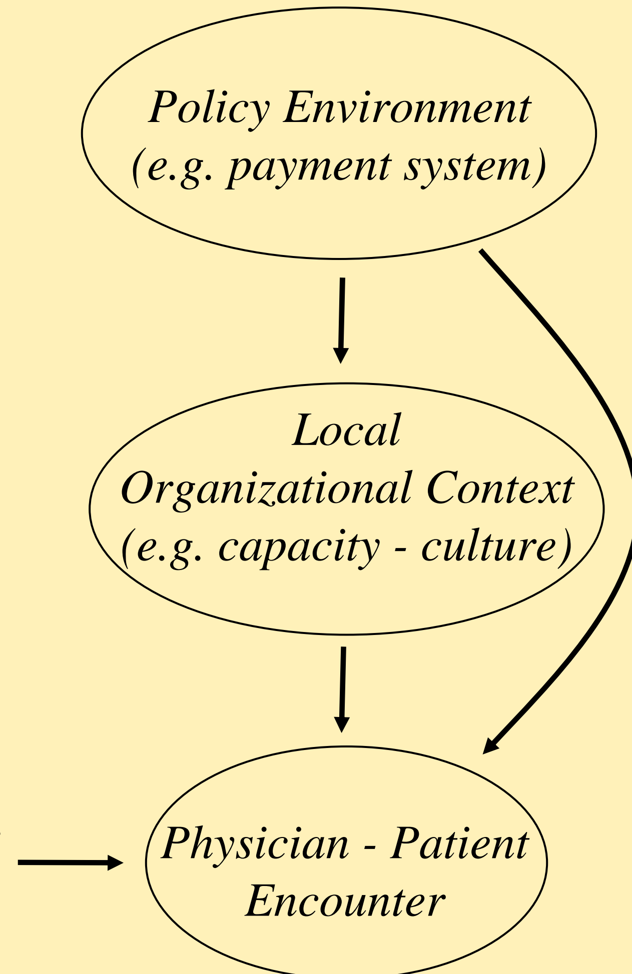
Local capacity and culture drive practice and spending

Clinical evidence (e.g. RCTs, guidelines) and principles of professionalism are a critically important -- but limited -- influence on clinical decision-making.

Physicians practice within a local organizational context and policy environment that profoundly influences their decision-making. Payment system ensures that existing (and new capacity) is fully utilized.

Consequence: *reasonable* individual clinical and local decisions lead, in aggregate, to higher utilization rates, greater costs -- *and inadvertently* -- worse outcomes

A focus on technical quality (guideline adherence) can not fix the problems of rising costs and inadvertent harm.



Addressing the underlying causes of poor quality and high costs

Foster local organizational accountability

Theory: improving quality and costs will require local organizational accountability across multiple dimensions:

- Decisions about capacity: investment, recruitment, practice location
- Financial capacity to invest in electronic health records
- Organizational support for quality improvement, monitoring, feedback, informed patient choice, care coordination

Potential "Accountable Care Organizations" (ACOs)

- Individual physicians (advanced medical home)
- Established multi-specialty group practices
- ***Hospital medical staff***
  - Welch-Miller proposed in early 1990's for inpatient stays
  - We extend this idea to include all patients and physicians

The Extended Hospital Medical Staff

Multispecialty group practice for all?

Approach

Use claims data to define where physicians work

Use claims data to identify the population they serve

Hospitals & Physicians

Creating Accountable Care Organizations: The Extended Hospital Medical Staff

A new approach to organizing care and ensuring accountability.

by Elliott S. Fisher, Douglas O. Staiger, Julie P.W. Bynum, and Daniel J. Gottlieb

Health Affairs; Published online, 12/05/06

The Extended Hospital Medical Staff

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Approach

Results: empirically defined multi-specialty groups

Specialty mix and size of Extended Hospital Medical Staff

	Urban or Large Town			Rural	
	Large	**Med.**	**Small**	**Large**	**Small**
MD or DO per 100 beds					
Primary Care	30	29	30	28	27
Medical Specialist	26	18	8	12	5
Surgeon	25	20	11	15	7
Other	45	34	18	25	11
Total	103	83	57	66	45

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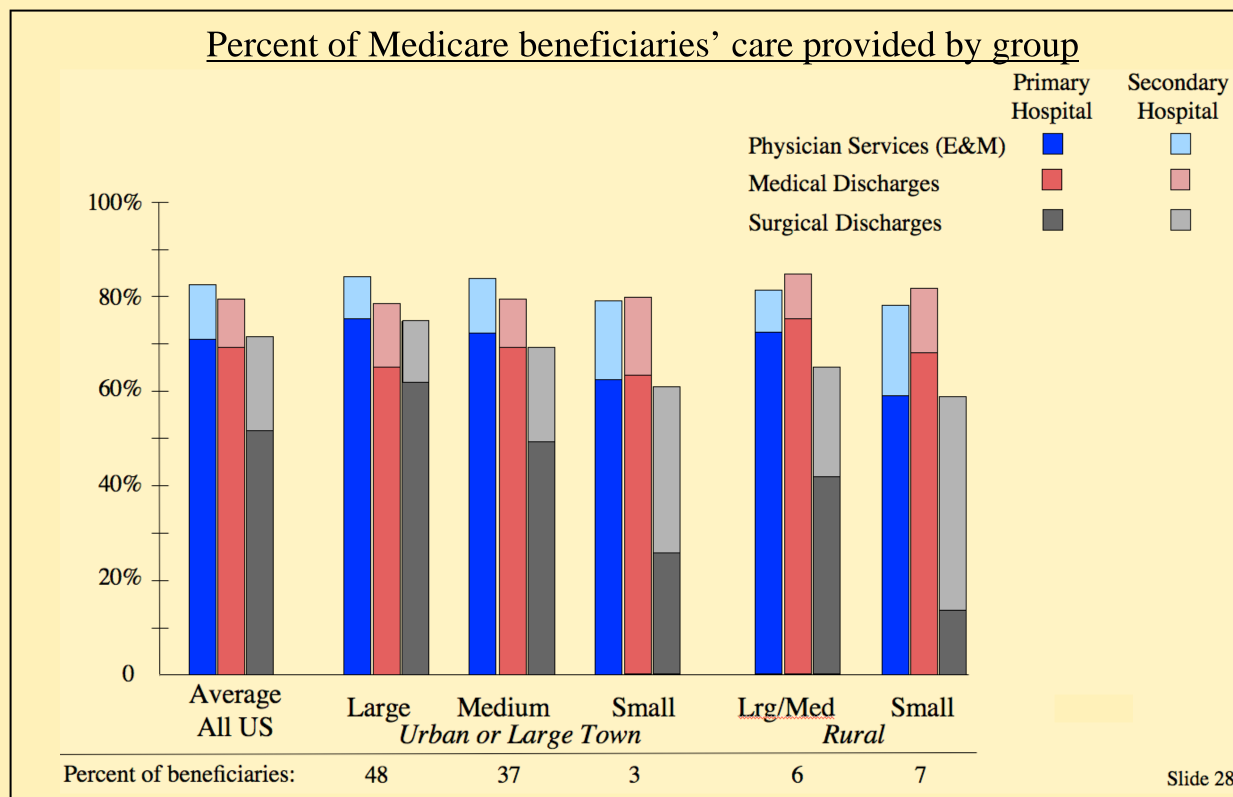
Results: empirically defined multi-specialty groups where most care is delivered by the group or referral center



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Approach

Results: empirically defined multi-specialty groups
where most care is delivered by the group or referral center
performance differs dramatically on important dimensions

Average group performance across regional spending levels

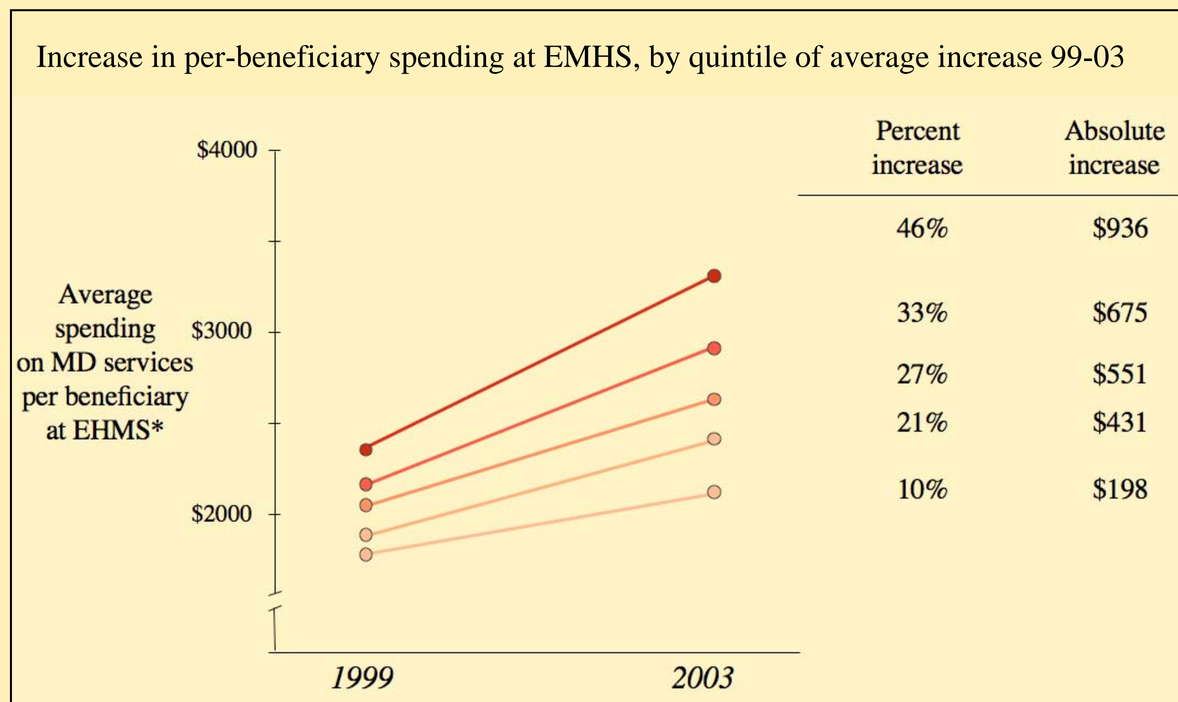
	Low Spending	*Middle*	*High Spending*	***Ratio High to Low***
Mammography 65-69	51.1	49.2	44.7	**0.87**
Colorectal Cancer screen	12.2	13.4	15.9	**1.30**
Eye exams, diabetes	41.3	41.0	40.7	**0.98**
HBA1c, diabetes	57.8	57.2	53.6	**0.92**
Hospital Discharges	308	374	407	**1.32**
SNF stays	70	78	85	**1.20**
Care transitions	0.80	0.94	1.01	**1.26**
Physician services**	$2,085	$2,560	$3,295	**1.58**
Acute care hospital	$2,086	$2,432	$2,649	**1.26**

The Extended Hospital Medical Staff

Multispecialty group practice for all?

Approach

Results: empirically defined multi-specialty groups
where most care is delivered by the group or referral center
performance differs dramatically on important dimensions
and in the magnitude of spending growth



Moving forward

Barriers shouldn't be dismissed

Current market going in the opposite direction

Medical staff organizations are weak

Legal obstacles to gainsharing

Berenson, Ginbserg, May. *Health Affairs web exclusives,* Dec. 5, 2006
Smithson, Baker. *Health Affairs web exclusives,* Dec. 5, 2006
Wilenski, Wolter, Fischer. *Health Affairs web exclusives,* Dec. 5, 2006

Moving forward

Advantages of EHMS as locus of accountability

Performance measurement more tractable at EHMS level

- Can include all physicians who contribute to care within frame of measurement immediately -- with adequate sample sizes
- Broader measures: quality, outcomes, coordination, costs.
- May face lower resistance from physicians than individual reporting.
- More practical: 5000 units to audit vs 500,000

Establishes a locus of accountability for capacity

- No other logical candidate
- SGR-like formula would create incentives to constrain capacity growth

Hospitals can intervene to improve quality

- Finance electronic health records for associated physicians
- Implement quality improvement initiatives

Cortese, Smoldt. *Health Affairs web exclusives,* Dec. 5, 2006

Fisher, Staiger, Bynum, Gottlieb. *Health Affairs web exclusives,* Dec. 5, 2006

Moving forward

Recognize that it will take time

Encourage development of Accountable Care Organizations

- Provide incentives for physicians to self-define as ACO, with clear criteria (size, capabilities, defined hospital relationships)
- Provide incentives for beneficiaries to choose responsible physician
- Financial incentives for shared Electronic Medical Record (EMR)

Begin to report performance measures at ACO (or Extended Hospital Medical Staff) level

Move steadily toward payment reform

- Shared savings demonstrations (public-private?)
- Establish growth pools at EHMS level

Major points

Higher spending across regions and physician groups is largely due to overuse of *supply-sensitive services* -- hospital and ICU stays, MD visits, specialist consults; *and more is worse*.

Overuse is largely a consequence of reasonable differences in clinical judgment (***not errors***) that arise in response to local organizational attributes (capacity, clinical culture) and state / national policies promoting growth and more care.

Policy initiatives (performance measurement, payment reform) should strive to foster the development of Accountable Care Organizations.

Candidates organizations include: multi-specialty groups, physician-hospital organizations, the extended hospital medical staff.