CECS
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Evaluative
Clinical Sciences

The Extended Hospital Medical Staff

Multi-specialty group practice for all?

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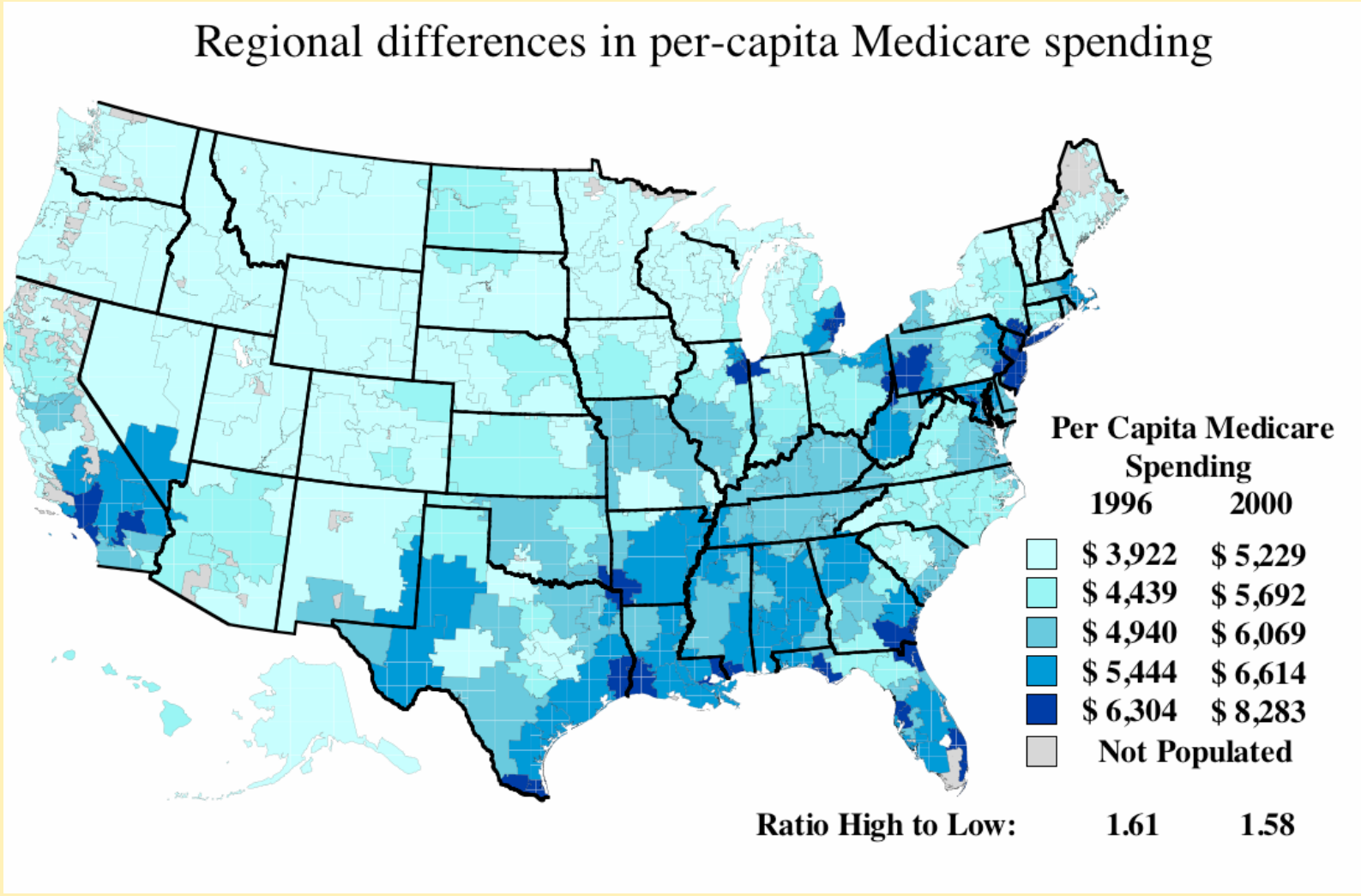


How can the best medical care in the world cost twice as much as the best medical care in the world?

Variations in spending

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

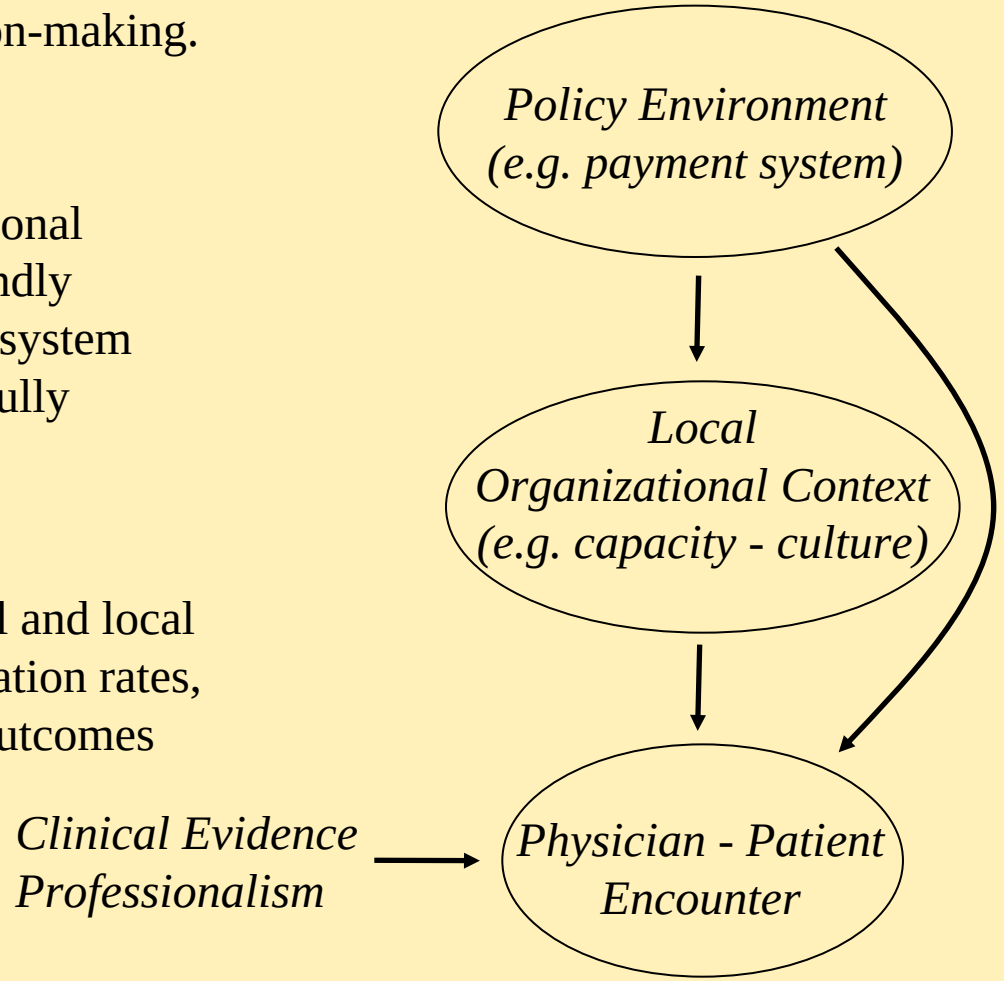
Likely diagnosis

Local capacity and culture drive spending: and no one is accountable

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



Accountability for capacity will be essential to control growth in spending

A possible approach
Foster local accountability

Theory: strengthen local organizational accountability:

Decisions about capacity: investment, recruitment, practice location

Longitudinal costs and quality

Care coordination and communication

Potential approaches:

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

Empirical work addresses four areas:

- Feasibility
- Characteristics (do they have face validity?)
- Performance measurement
- EHMS as framework for assessing volume growth

Discussion

The Extended Hospital Medical Staff

Empirical work addresses four areas:

- Feasibility of using claims data to define EHMS

Methods / Feasibility

Defining a Hospital's Extended Medical Staff

General Approach:

MDs with inpatient work -- assigned to the hospital where they provided care to the greatest number of Medicare beneficiaries

MDs with no inpatient work -- assigned to the hospital where the plurality of patients they billed for were admitted.

Results: *virtually all physicians billing Medicare can be assigned*

602,540 with valid UPINs in 20% Part B, Outpt or Inpatient File

Exclude 31,020: non-US hospital, unassignable MD, unknown specialty

571,520 (95%) assigned to acute care hospitals located in U.S.

Methods / Feasibility

Defining the populations they serve

Approach for Ambulatory Care (all Medicare beneficiaries)

1. Assign each patient to their predominant care physician (primary care MD or medical subspecialist, then others)
2. **Primary Hospital**: Assign to their primary hospital (based on their *physicians'* assignment)
3. **Secondary Hospital:** Identify the secondary hospital used by each hospital's patients (usually a referral hospital).

Results: *Virtually all Medicare beneficiaries can be assigned*

5.5 million beneficiaries in 20% sample; age 65+, non-HMO

exclude 386,621 with no outpatient MD visits

exclude 70,477 outside US

5.1 million (93%) assigned to a U.S. acute care hospital

Overview of Talk

Empirical work addresses four areas:

- Feasibility of using claims data to define EHMS
- Characteristics of resulting EHMS (do they have face validity?)

Face Validity and Coherence of Defined EHMS

Characteristics of Medical Staff (specialty mix)

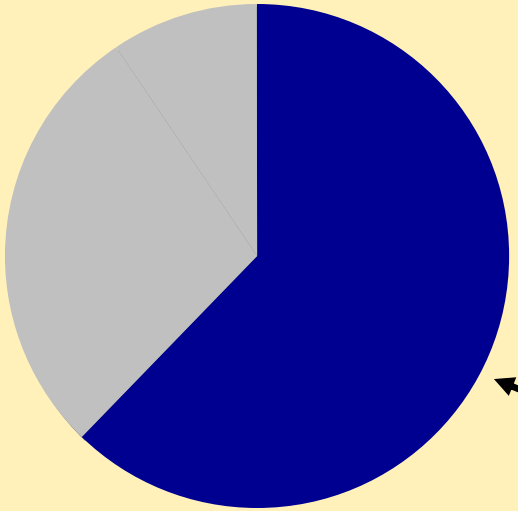
	Average All US	Urban or Large Town			Rural	
		Large	Med.	Small	Large	Small
Number of hospitals		*766*	*1708*	*568*	*368*	*1362*
Percent of physicians		*53*	*38*	*2*	*4*	*3*
Percent of beneficiaries		*48*	*37*	*3*	*6*	*7*
MD or DO per 100 beds						
Primary Care	30	**30**	29	**30**	28	27
Medical Specialist	21	**26**	18	**8**	12	5
Surgeon	21	**25**	20	**11**	15	7
Other	37	**45**	34	**18**	25	11
Total	88	**103**	83	**57**	66	45

Face Validity and Coherence of Defined EHMS

Affiliation (direct or indirect) of physicians with hospitals

62% of physicians perform inpatient work
Of these:

38% work at multiple hospitals



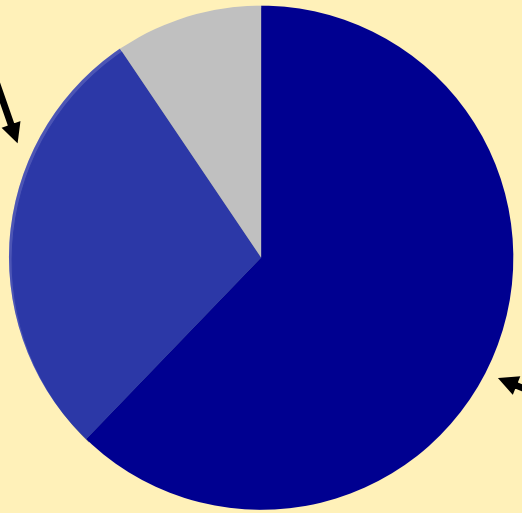
62% work at only one hospital
100% of their work is at this "primary" hospital (by definition)

Face Validity and Coherence of Defined EHMS

Affiliation (direct or indirect) of physicians with hospitals

62% of physicians perform inpatient work
Of these:

38% work at multiple hospitals
75% of their work is at their assigned primary hospital



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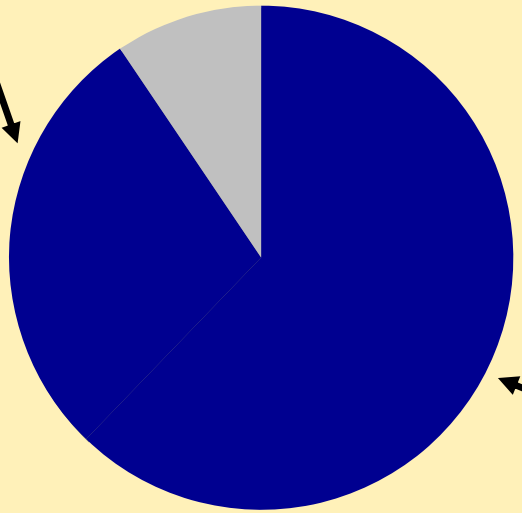

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Overall, 90% of physicians' inpatient work is at their assigned "primary" hospital

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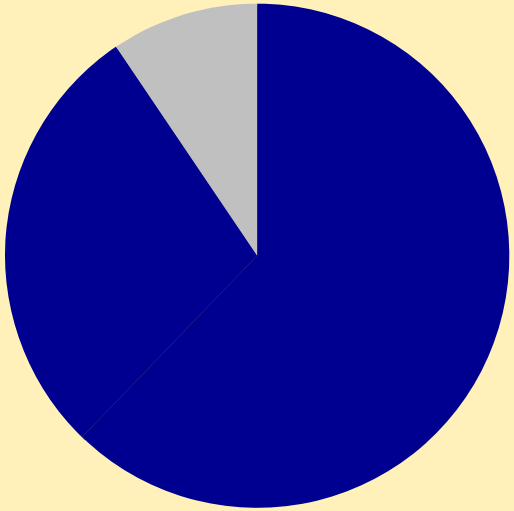
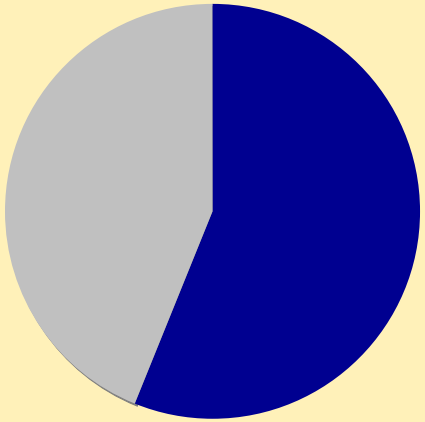
Of these:



Overall, 90% of physicians' inpatient work is at their assigned "primary" hospital

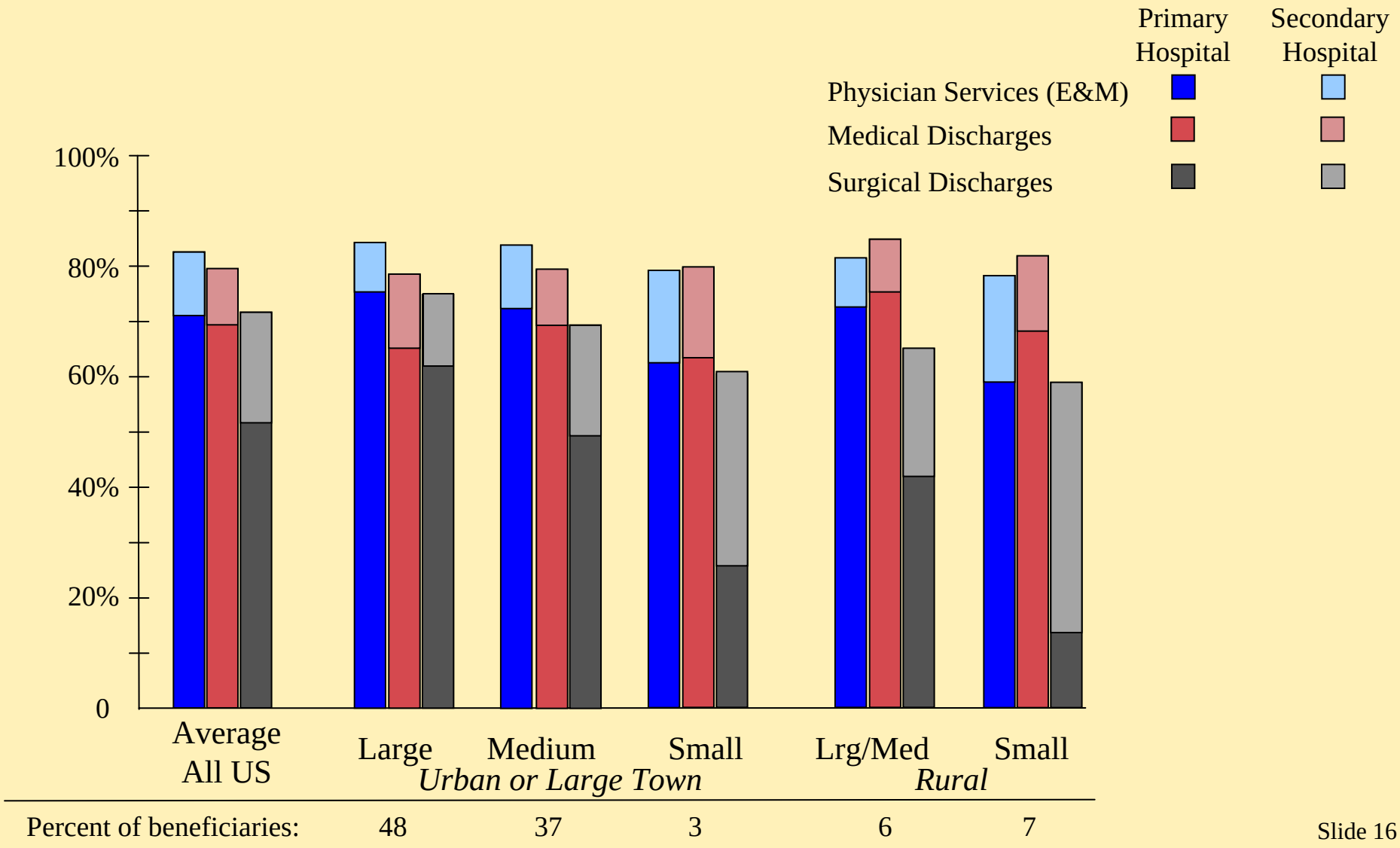
38% perform no inpatient work.
Of these:

56% of admissions for their patients are at their assigned "primary" hospital



Coherence -- Concentration of Care

Percent of beneficiaries' care at assigned primary or secondary hospital



Overview of Talk

Empirical work addresses four areas:

- Feasibility of using claims data to define EMHS
- Characteristics of resulting EMHS (do they have face validity?)
- Performance measurement: individual MD vs EHMS

How many physicians have enough ambulatory patients assigned?

Percent of physicians caring for panels of various sizes

	Assessed as Individual Physicians		*Assessed as members of EHMS*
	Among MDs with 1+ patient assigned (n = 254,250)	*Among all MDs (n = 572,637)*	*Among all MDs (n = 572,637)*
No patients	0	56	0
1 to 24	36	16	0.3
25-99	30	13	0.7
100-499	32	15	1.3
500 and over	1	1	97.7
	100%	100%	100%

Feasibility of performance measurement

*2003 average performance, stratified by 2003 MD spending**

	Low Spending	*Middle*	*High Spending*	***Ratio High to Low***
Mammography 65-69	47.8	48.6	47.2	**0.87**
Colorectal Cancer screen	11.5	13.2	16.4	**1.30**
Eye exams, diabetes	39.0	40.5	41.5	**0.98**
HBA1c, diabetes	54.9	56.5	54.5	**0.92**
Hospital Discharges§	330	367	390	**1.18**
SNF stays §	74.3	75.7	81.7	**1.10**
Care transitions	0.86	0.92	0.97	**1.26**
*Physician services***	$2,085	$2,560	$3,295	**1.58**
Acute care hospital	$2,086	$2,432	$2,649	**1.26**

* Defined using 2003 RVUs

** Physician and hospital spending calculated using standardized national prices (spending and utilization data are age-sex-race adjusted)

§ per 1000 beneficiares

Feasibility of performance measurement

*2003 average performance, stratified by 2003 MD spending**

	Low Spending	*High Spending*	***Ratio High to Low***
Mammography 65-69	47.8	47.2	**0.99**
Colorectal Cancer screen	11.5	16.4	**1.43**
Eye exams, diabetes	39.0	41.5	**1.06**
HBA1c, diabetes	54.9	54.5	**0.99**
*Physician services**	$2,085	$3,295	**1.58**
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- EMHS as framework for assessing volume growth

Approaches to assessing volume growth

*All services **billed** by medical staff (including for patients not assigned)*

Advantages

- Attribution and responsibility are absolutely clear for services billed.

Disadvantages

- Population served can fluctuate, distorting interpretation.
- Cannot easily expand beyond Part B to include all services.

*All services **provided to their assigned patients,** regardless of where or by whom.*

Disadvantages

- Out-of-system care is not directly controlled by primary staff.

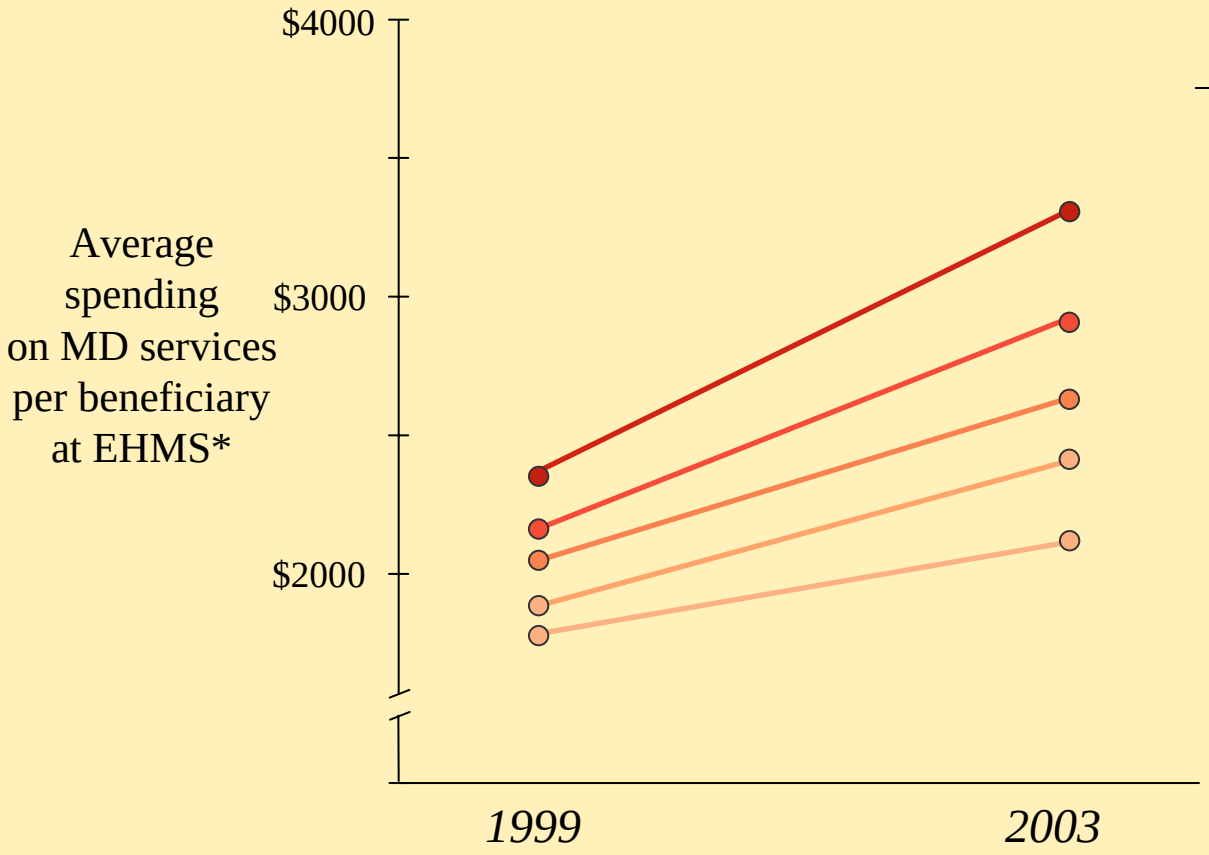
Advantages

- Population served is well defined, providing stable denominator for rates.
- Measurement can expand to include all services, not just Part B.
- Incentives are to manage care of the population served and reduce their per-beneficiary costs.

We therefore focused this analysis on the assigned patients

Growth in spending on physician services at EHMS

stratified by average absolute growth across HRRs



Percent increase	Absolute increase
45.8%	$936
33.0%	$675
26.9%	$551
21.1%	$431
9.7%	$198

*standardized payments, using 2003 RVU

Discussion

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

Discussion

Barriers shouldn't be dismissed

Current market going in the opposite direction

Lack of physician organizational structures

Legal obstacles

Variation across hospitals and markets in coherence

Discussion

How might we move forward?

Enhance coherence of hospital medical staff

- Provide incentive for physicians to choose hospital with which they wish to be affiliated (e.g small increment in conversion factor).
- Provide incentives for beneficiaries to choose responsible physician
- Financial incentives for shared Electronic Medical Record (EMR)

Report performance measures at EHMS level

Payment reform

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