The Social Mission of Medical Education: At the Core of Health Reform

A Collaborative Project between the Robert Graham Center and the George Washington University Department of Health Policy

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Congressional Briefing

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Social Mission Defined

The social mission of medical education is the contribution of a medical school in its mission, programs, and the performance of its graduates to addressing the critical and unmet health problems of the society in which it exists

Current Health System Mega-Challenges

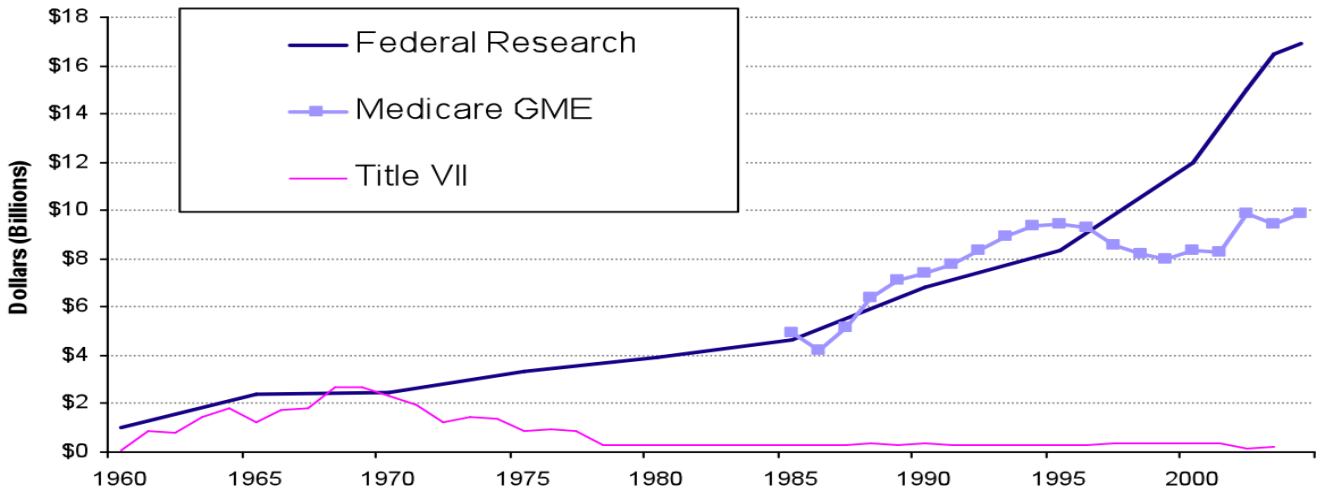
- **Access – 50 million Americans without insurance**
- **Distribution – Huge variation in availability of physicians from area to area**
- **Quality – Systemic problems with quality of care**
- **Cost – Expense of US system is now a drag on national economy**

Emerging Social Mission Issues in Medical Education

- Health Disparities
- Social determinants in health
- Interprofessional education
- Cost management
- Generalism
- **Accountability**

Original Slide:
Federal Funding for Medical Education and Primary Care

Figure 6: U.S. Medical School Revenue, 2008 Dollars



Source: AAMC Data Book, Centers for Medicare and Medicaid Services, Health Resources and Services Administration

Social Mission of Medical Education: Ranking the Schools

ACADEMIA AND CLINIC | Annals of Internal Medicine

The Social Mission of Medical Education: Ranking the Schools

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Background: The basic purpose of medical schools is to educate physicians to care for the national population. Fulfilling this goal requires an adequate number of primary care physicians, adequate distribution of physicians to underserved areas, and a sufficient number of minority physicians in the workforce.

Objective: To develop a metric called the social mission score to evaluate medical school output in these 3 dimensions.

Design: Secondary analysis of data from the American Medical Association (AMA) Physician Masterfile and of data on race and ethnicity in medical schools from the Association of American Medical Colleges and the American Association of Colleges of Osteopathic Medicine.

Setting: U.S. medical schools.

Participants: 60 043 physicians in active practice who graduated from medical school between 1999 and 2001.

Measurements: The percentage of graduates who practice primary care, work in health professional shortage areas, and are underrepresented minorities, combined into a composite social mission score.

Results: The contribution of medical schools to the social mission of medical education varied substantially. Three historically black colleges had the highest social mission rankings. Public and community-based medical schools had higher social mission scores than private and non–community-based schools. National Institutes of Health funding was inversely associated with social mission scores. Medical schools in the northeastern United States and in more urban areas were less likely to produce primary care physicians and physicians who practice in underserved areas.

Limitations: The AMA Physician Masterfile has limitations, including specialty self-designation by physicians, inconsistencies in reporting work addresses, and delays in information updates. The public good provided by medical schools may include contributions not reflected in the social mission score. The study was not designed to evaluate quality of care provided by medical school graduates.

Conclusion: Medical schools vary substantially in their contribution to the social mission of medical education. School rankings based on the social mission score differ from those that use research funding and subjective assessments of school reputation. These findings suggest that initiatives at the medical school level could increase the proportion of physicians who practice primary care, work in underserved areas, and are underrepresented minorities.

Primary Funding Source: Josiah Macy, Jr. Foundation.

Ann Intern Med. 2010;152:804-811. www.annals.org

For author affiliations, see end of text.

Medical Schools Social Mission Score, Primary Care, HPSA and Minorities

Rank	School Name	State	Social Mission Score	% Primary Care [std score]	% HPSA [std score]	URM School State (Nation) Ratio [std score]	School URM %	State (Nation) URM %
1	Morehouse	GA	13.98	43.7 [1.20]	39.1 [1.40]	3.15 [11.38]	83.3%	26.5%
2	Meharry	TN	12.92	49.3 [2.00]	28.1 [0.14]	2.99 [10.78]	79.3%	26.5%
3	Howard	DC	10.66	36.5 [0.19]	33.7 [0.78]	2.71 [9.68]	71.9%	26.5%
4	Wright State-Boonshoft	OH	5.34	49.2 [1.98]	28 [0.12]	1.31 [3.23]	19.0%	14.5%
5	U Kansas	KS	4.49	45.2 [1.42]	43.9 [1.96]	0.77 [1.12]	11.6%	15.1%
6	Michigan State University	MI	4.13	43.6 [1.20]	26.5 [-0.05]	1.24 [2.99]	23.7%	19.1%
7	East Carolina-Brody	NC	3.72	51.9 [2.36]	34.2 [0.84]	0.62 [0.52]	17.3%	28.1%
8	U South Alabama	AL	3.15	42 [0.97]	52.7 [2.97]	0.29 [-0.78]	8.2%	28.7%
9	Ponce	PR	3.02	33 [-0.31]	43.8 [1.94]	0.84 [1.38]	82.5%	26.5%
10	Iowa-Carver	IA	2.97	37.1 [0.28]	21 [-0.69]	1.35 [3.38]	8.1%	6.0%

Medical Schools Social Mission Score, Primary Care, HPSA and Minorities

Rank	Sc hool Name	State	Social Mission Score	% Primary Care [std score]	% HPSA [std score]	URM School:State (Nation) Ratio [std score]	School URM %	State (Nation) URM %
132	Einstein	NY	-2.13	26.1 [-1.28]	24.8 [-0.25]	0.33 [-0.60]	8.8%	26.5%
133	Stony Brook	NY	-2.21	29.1 [-0.85]	20.4 [-0.76]	0.33 [-0.60]	10.5%	31.7%
134	Jefferson	PA	-2.34	32.1 [-0.42]	20.6 [-0.72]	0.18 [-1.19]	4.8%	26.5%
135	Uniformed Services	MD	-2.36	29.6 [-0.78]	21.4 [-0.64]	.024 [-0.95]	6.5%	26.5%
136	UMDNJ-New Jersey	NJ	-2.46	23.7 [-1.61]	17.8 [-1.05]	0.54 [0.20]	14.8%	27.7%
137	New York University	NY	-2.65	24.3 [-1.53]	22.1 [-0.55]	0.34 [-0.57]	9.0%	26.5%
138	UC Irvine	CA	-3.02	32.9 [-0.32]	14.2 [-1.47]	0.17 [-1.24]	7.0%	41.2%
139	Northwestern-Feinberg	IL	-3.11	24.4 [-1.51]	19.5 [-0.86]	0.30 [-0.74]	7.9%	26.5%
140	UT Southwestern	TX	-3.64	26.8 [-1.18]	15.1 [-1.36]	0.21 [-1.09]	9.3%	44.7%
141	Vanderbilt	TN	-3.95	21.9 [-1.86]	20.8 [-0.70]	0.13 [-1.38]	3.6%	26.5%

Findings

- **The success of the African American Schools**
- **Public school advantage**
- **Rural advantage**
- **Northeastern disadvantage**
- **Negative correlation between NIH support and social mission score**

Study Schools

- University of Oklahoma-Tulsa School of Community Medicine
- Southern Illinois University School of Medicine
- Northern Ontario School of Medicine
- Morehouse School of Medicine
- University of New Mexico School of Medicine
- A.T. Still University, School of Osteopathic Medicine in Arizona

Social Mission Drivers

- School mission statement
- Pipeline cultivation
- Student admissions
- Structure and content of curriculum
- Location of clinical experience
- Tuition management
- Mentoring and role modeling
- Preparation for residency

Other Social Mission Projects

- Medical School Mapper
- Primary Care Physician Mapper
- GME Outcomes Mapper
- Teaching Health Centers Evaluation
- Geography of GME
- Teaching Health Policy Initiative
- **GME Accountability Study**

GME Outcomes Study

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Methods

- AMA Physician Masterfile
- AMA Historical Residency File
- National Provider Identifier (NPI) File
- FQHC and RHC Medicare claims, 2009
- National Health Service Corps historical file
- ACGME sponsoring institution/primary training sites data
- CMS Hospital Cost Reports, 2008

Methods

- Residency Information:
  - Program name and unique identifying code
  - Start and end date
  - Program Specialty
- Practice Information:
  - Specialty
  - Address
- Demographic Information (DOB, gender, IMG)

Methods

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Best/Worst Primary Care production

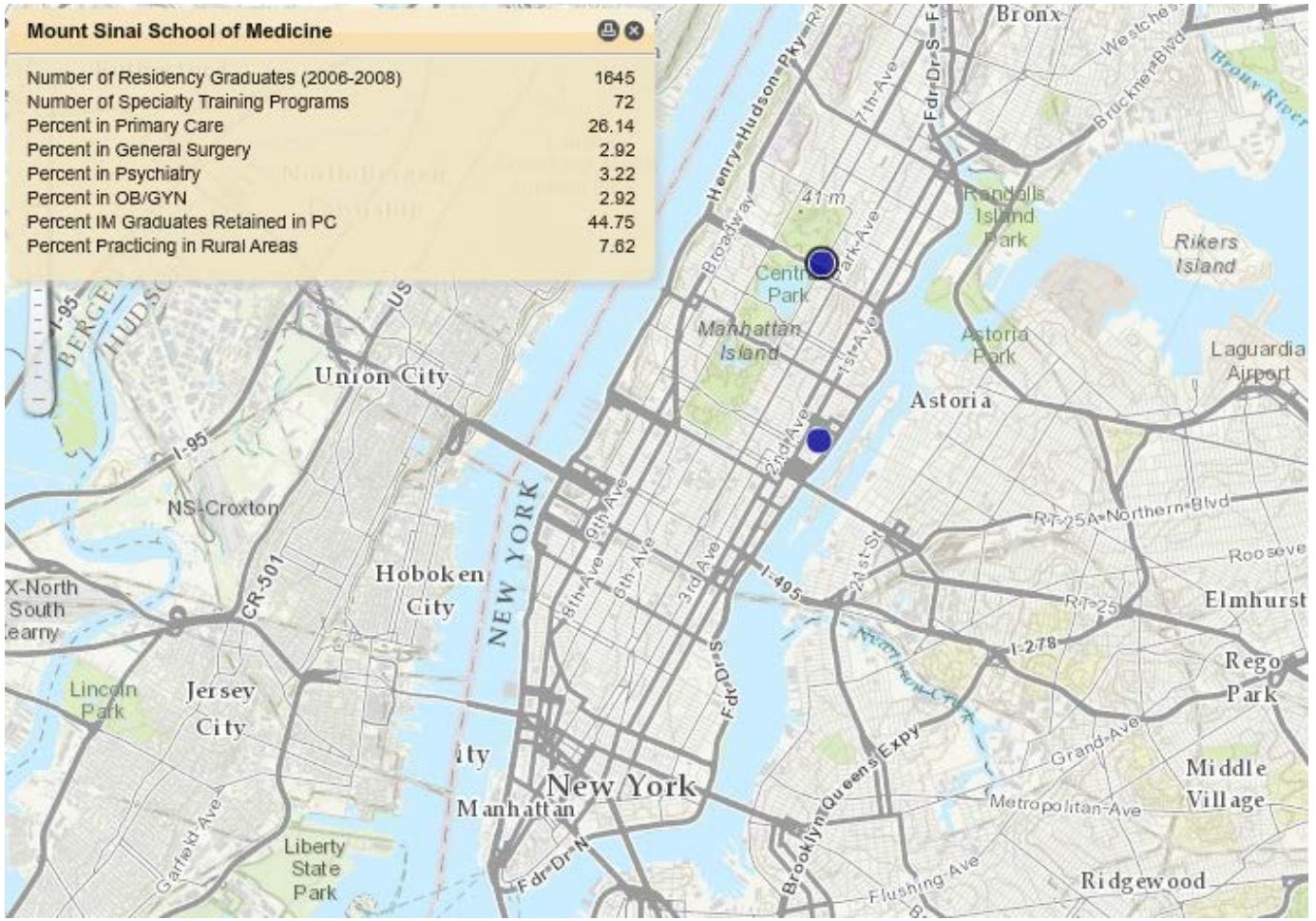
	State	Grads	Spec	**PC**	**% PC**
1. Univ Nevada SOM	NY	239	11	**129**	**54%**
2. Bronx-Lebanon	NY	286	12	**143**	**50%**
3. KP South. California	CA	286	16	**140**	**49%**
4. Brooklyn Hosp Center	NY	227	9	**109**	**48%**
5. James H Quillen COM	TN	240	12	**113**	**47%**
157. Vanderbilt	TN	793	59	**67**	**8.5%**
158. Stanford	CA	781	70	**65**	**8.3%**
159. Brigham and Women's	MA	893	45	**69**	**7.7%**
160. Mass General	MA	848	44	**55**	**6.5%**
161. Wash Univ	MO	1048	72	**66**	**6.4%**

* Limited to programs with more than 200 graduates between 2006-2008

Best/Worst Rural production

	State	Grads	Spec	**Rural**	**% Rural**
1. Univ Puerto Rico	PR	343	29	**74**	**61%**
2. Geisinger Health System	PA	220	21	**57**	**46%**
3. Mary Hitchcock Mem Hosp	NH	361	37	**80**	**44%**
4. Univ of Kansas	KS	233	11	**46**	**30%**
5. James H Quillen COM	TN	240	12	**40**	**29%**
157. New York Presbyterian	NY	1,599	70	**7**	**1.4%**
158. St. Luke's-Roosevelt	NY	529	29	**3**	**1.3%**
159. Cedars-Sinai	CA	325	27	**2**	**1.2%**
160. UCLA Medical Center	CA	458	33	**2**	**0.8%**
161. Boston Children's	MA	423	29	**0**	**0%**

* Limited to programs with more than 200 graduates between 2006-2008 and physicians in direct patient care



	Grads	Spec	PC	% PC	Rural	% Rural
Mount Sinai	1,645	72	430	26%	51	7.6%
New York Presbyterian	1,599	70	137	8.6%	7	1.4%

Primary Care and Rural Outlook

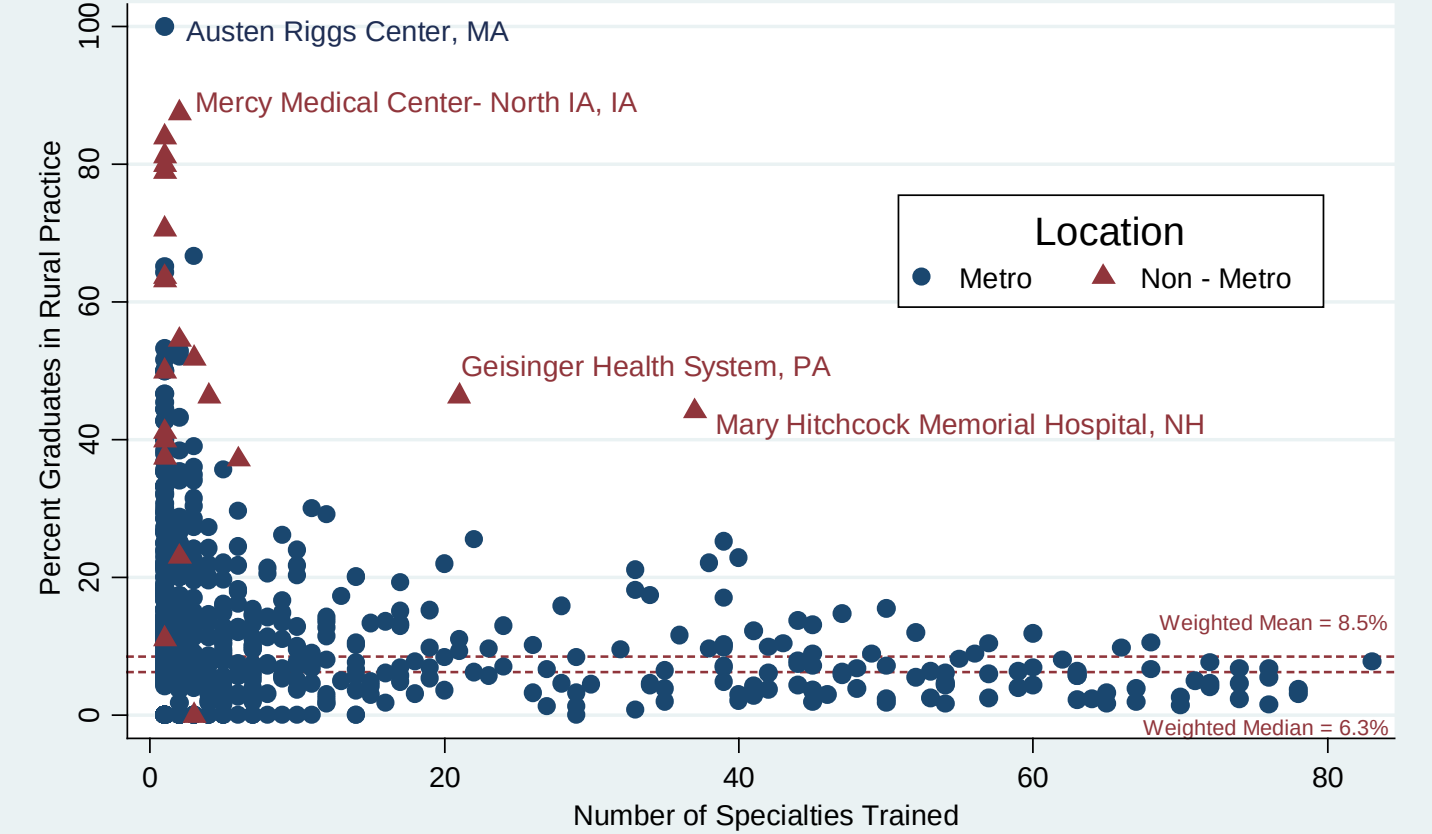
Overall GME Primary Care Production	**25.2%**
Primary Care Physician Workforce*	32%
COGME Primary Care Workforce Recommendation*	40%

* COGME 20th Report

Overall GME Rural Production	**4.8%**
Rural Physician Workforce*	11.4%
Rural U.S. Population*	19.2%

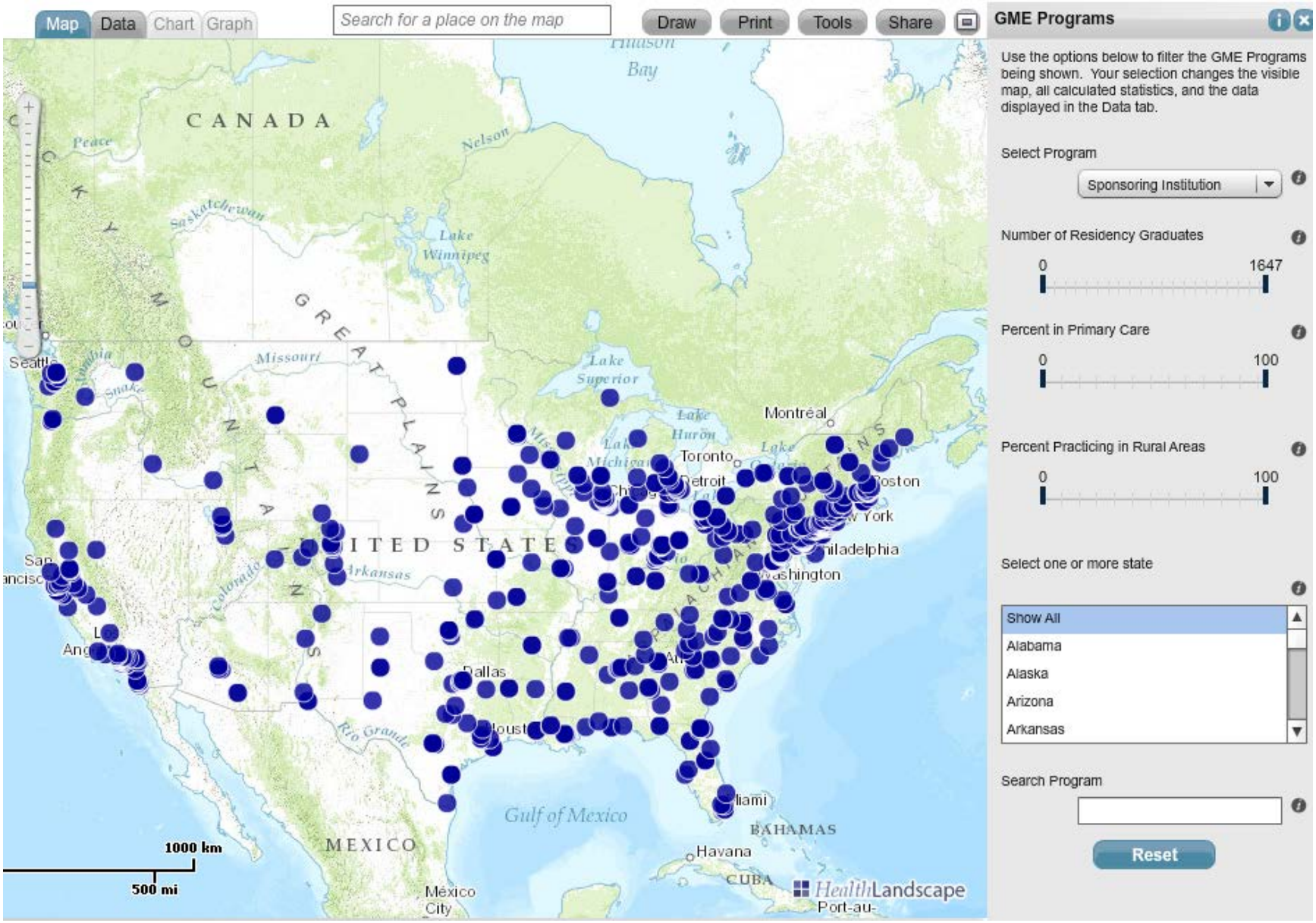
* Fordyce et al. 2005 Physician Supply and Distribution in Rural Areas of the United States

Rural Outcome Relative to Number of Specialties Trained



* Limited to Sponsoring Institutions with more than 3 graduates between 2006-2008.

** Puerto Rico institutions are excluded as PR is not included in the rural-urban continuum code designation



www.graham-center.org/gmemapper

American Board of Family Medicine, Inc.

Medical Education Accountability

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Vice President, Research & Policy
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Summary

- Measures of Accountability are measurable
  - They can be modified and updated regularly
  - Some important limitations, other measures needed
- Not producing enough of what we need, where we need them
  - Not enough to sustain much less meet needs
- In the absence of accountability, GME bends to teaching hospital business plan
- Listen to Flexner, Coggeshall, IOM, COGME

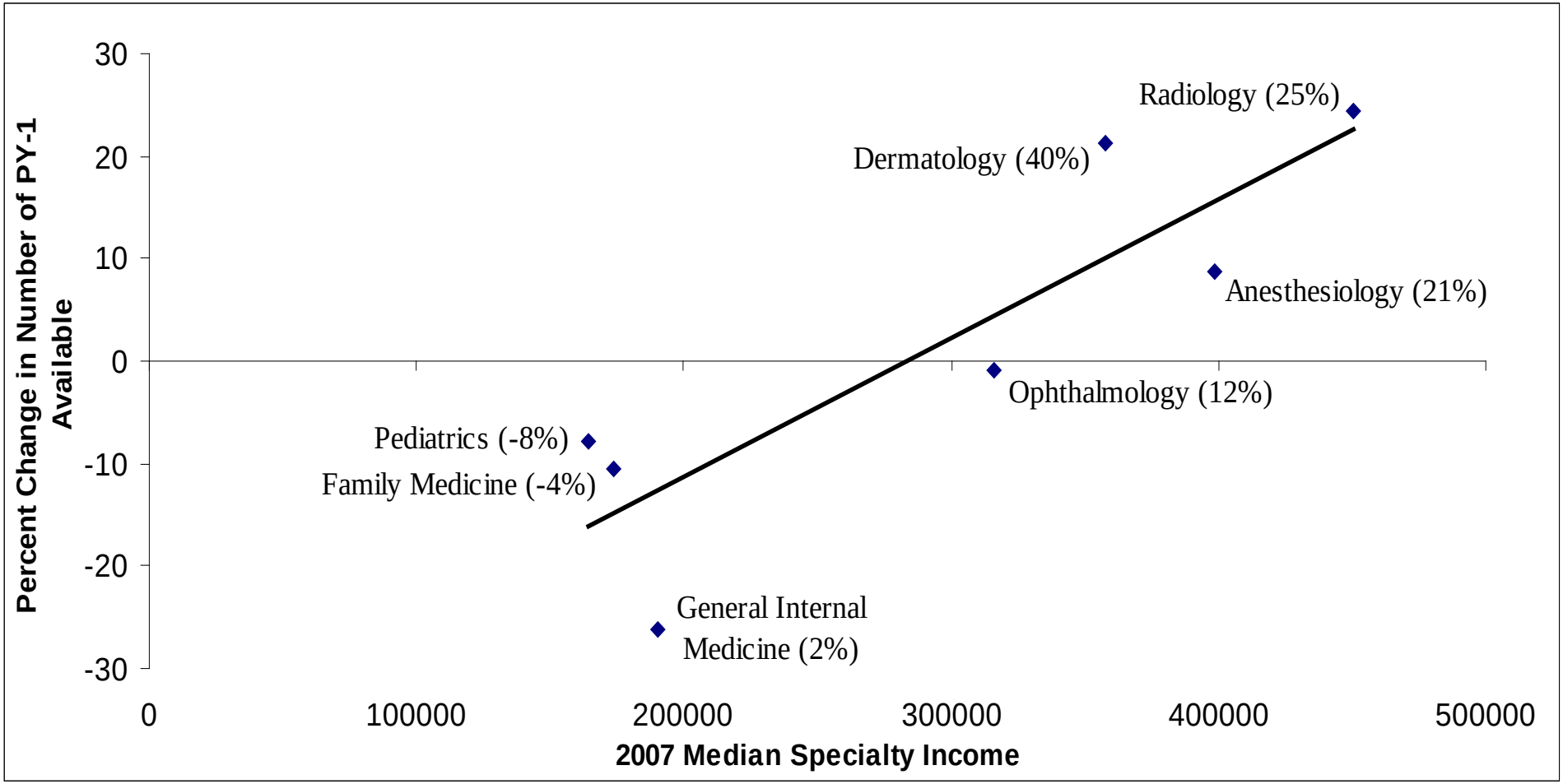
What we Need?

- 52,000 more primary care physicians by 2025
  - ~8,000 next year due to insurance expansion (more if they don't go to shortage areas)[1]
- Medical school output of primary care declined by 20-25% over the last decade
- From GME,
  - ~20% primary care
  - < 5% going rural
  - < 5% going into community health centers or rural health clinics

Caveats

- We **over-count** generalists
  - Can't identify hospitalists
  - We estimate average ~35% General Internist retention, American Board of Internal Medicine says 17-21%[2]
- Difficulty with linking ~14% of trainees to primary teaching sites
- Difficulty with pure osteopathic training
- Related qualitative study of GME Stakeholders
  - (1)Workforce needs, (2)Training quality, (3)Service
  - Will be published in September Journal of GME

Bending GME to Business



Weida NA, Phillips RL Jr, Bazemore AW. Does graduate medical education also follow green? Arch Intern Med. 2010;170(4):389-90.

Institute of Medicine

The committee recommends an adjustment to the Medicare payment for the direct costs of GME that would create an incentive to establish residencies in primary care and to place those residents in primary care ambulatory settings.

- IOM Consensus Report. Primary Care Physicians: Financing Their Graduate Med Education in Ambulatory Settings. January 1, 1989

MEDPAC

The Commission recommends

- Increasing accountability for Medicare's GME payments via:
  - Performance-based incentive program
  - Publishing Medicare's payments and teaching costs

    - June 2010 MEDPAC Report to Congress: Chapter 4: Graduate Medical Education Financing: Focusing on educational priorities.

COGME

Recommendation: Medical Schools and academic health centers should develop an accountable mission statement and measures of social responsibility to improve the health of all Americans.

This includes strategically focusing and changing the processes of medical students and resident selection and altering the design of educational environments to foster a physician workforce of at least 40 percent primary care physicians and a health system that meets societal needs.

» COGME-20th Report 2010

President's Budget

From the 2012 HHS Budget Document

Better Align Graduate Medical Education Payments with Patient Care Costs:

gradually reducing [IME] payments by a total of **ten percent**, beginning in 2014.

Would gives the Secretary authority to set standards for teaching hospitals receiving GME Payments particularly for primary care

Coggeshall (AAMC) Report, 1965

"Those responsible for medical education…will, in decades ahead, need to devote careful attention to appraising the needs of society for health care and

"Positive assumption of responsibility and positive action – and this alone – can keep the initiative in the hands of those best prepared to plan the destiny of medical education."

- Coggeshall, Lowell T. **Planning for medical progress through education; a report submitted to the Executive Council of the Association of American Medical Colleges.** Evanston, Ill., Association of American Medical Colleges. 1965

Implications

- Increasingly difficult to justify GME funding without accountability
- We can’t sustain what we have much less meet coming needs
- GME can bend back to community/national needs
- Good evidence for trainee selection, training content, training location, and incentives
- Timely opportunity for policy supporting accountability