

# Physicians: How They're Paid and What They Do.

# The Lay of the Land

- Active physicians in the U.S. in 2015: 897,000

**Table 1. Changes in Physician Practice Over Time**

| Practice Setting                        | 1996-1997 | 1998-1999 | 2000-2001 | 2004-2005 |
|---|-----------|-----------|-----------|-----------|
| Solo/Two Physicians                     | 40.7%     | 37.4%     | 32.5%     | 32.5%     |
| Small Group, 3-5 Physicians             | 12.2%     | 9.6%      | 11.7%     | 9.8%      |
| Medium Group, 6-50 Physicians           | 13.1%     | 14.2%     | 15.8%     | 17.6%     |
| Large Group, More than 50 Physicians    | 2.9%      | 3.5%      | 2.7%      | 4.2%      |
| Staff/Group HMO                         | 5.0%      | 4.6%      | 3.8%      | 4.5%      |
| Hospital-Owned, Medical School or Other | 26.3%     | 30.8%     | 30.8%     | 31.4%     |

Source: Center for Studying Health System Change, <http://facts.kff.org/chart.aspx?ch=185>. Also <http://www.hschange.com/CONTENT/941/?topic=topic22>.

- Physician practices are getting larger
- Increasing affiliation with hospitals

# The Lay of the Land

Exhibit 5. Distribution of Physicians by Practice Size<sup>1</sup>

|   | 2012              | 2014               | 2016               |
|---|-------------------|--------------------|--------------------|
| <b>Number of physicians in practice</b>     |                   |                    |                    |
| Less than 5                                 | 40.0%             | 40.9% <sup>b</sup> | 37.9%              |
| 5 to 10                                     | 21.4%             | 19.8%              | 19.9%              |
| 11 to 24                                    | 13.5%             | 12.1%              | 13.3%              |
| 25 to 49                                    | 7.1%              | 6.3%               | 7.4%               |
| 50+   | 12.2%             | 13.5%              | 13.8% <sup>b</sup> |
| <b>Direct hospital employee<sup>2</sup></b> | 5.8% <sup>a</sup> | 7.5%               | 7.7% <sup>a</sup>  |
|   | 100%              | 100%               | 100%               |
| <b>N</b>                                    | 3326              | 3388               | 3381               |

Source: Author's analysis of AMA 2012, 2014, and 2016 Physician Practice Benchmark Surveys.

Notes: <sup>1</sup> Significance tests are for year to year changes, within category. 'a' is p<0.01 and 'b' is p<0.05. Indications in the 2012 column are tests for 2012 and 2014; in the 2014 column for 2014 and 2016; and in the 2016 column for 2012 and 2016. <sup>2</sup> See footnote 6 for an explanation of why, in each year, the percentage of physicians who are direct hospital employees in Exhibit 5 is different than in Exhibits 1 and 7.

- Continued consolidation in recent years.

# Possible Reasons for Consolidation

## ■ Financial Motivation:

- Improving bargaining leverage for negotiations with private insurers

## ■ Regulation and Technology:

- Fixed costs (which can come from regulatory compliance and from major technology investments) increase the returns to scale.

## ■ Preferences (speculative):

- The typical physician today may have less of a preference for “being my own boss”

# The Lay of the Land

- Conventional wisdom: too much specialty care and not enough primary care.
  - More data on this later, along with potential explanations

**EXHIBIT 3**

Health care workforce in selected Organization for Economic Cooperation and Development (OECD) countries, 2000 and 2015

|  | United States | OECD median | OECD minimum     | OECD maximum   |
|--|---------------|-------------|------------------|----------------|
| <b>PHYSICIANS</b>                              |               |             |                  |                |
| Practicing MDs per 1,000 population            |               |             |                  |                |
| 2000   | 23            | 2.8         | 1.3 (Korea)      | 3.9 (Austria)  |
| 2015   | 2.6           | 3.2         | 2.2 (Korea)      | 5.1 (Austria)  |
| Medical graduates per 100,000 population, 2015 | 7.5           | 12.1        | 0.0 (Luxembourg) | 23.7 (Ireland) |
| MD visits per capita, 2015                     | 6.5           | 6.5         | 2.7 (Luxembourg) | 16.0 (Japan)   |
| Generalist MDs as percent of total MDs, 2015   | 11.9%         | 27.9%       | 11.9% (US)       | 59.0% (France) |

Source: It's Still the Prices Stupid

## 2. What is Your Medical Specialty?

| Primary Care              | 2016         | 2014         | 2012         | All Physicians* |
|---------------------------|--------------|--------------|--------------|-----------------|
| Family Practice           | 14.0%        | 14.6%        | 14.2%        | 12.1%           |
| General Internal Medicine | 11.1%        | 12.0%        | 11.3%        | 13.3%           |
| Pediatrics                | 11.8%        | 10.6%        | 9.3%         | 7.0%            |
| <b>Total</b>              | <b>36.9%</b> | <b>37.2%</b> | <b>34.8%</b> | <b>32.4%</b>    |

| Surgical/Medical/Other   | 2016         | 2014         | 2012         | All Physicians* |
|--------------------------|--------------|--------------|--------------|-----------------|
| Surgical Specialty       | 5.5%         | 13.5%        | 13.6%        | 5.3%            |
| Surgical Sub-Specialties | 5.9%         | N/A          | N/A          | 3.5%            |
| Medical Specialty        | 42.4%        | 33.5%        | 12.2%        | 51.2%           |
| Ob/Gyn                   | 5.1%         | 6.2%         | 6.2%         | 4.7%            |
| General Surgery          | 3.0%         | 3.8%         | 4.4%         | 2.9%            |
| Other                    | 1.2%         | 5.7%         | 28.8%        | 0.0%            |
| <b>Total</b>             | <b>63.1%</b> | <b>62.7%</b> | <b>65.2%</b> | <b>67.6%</b>    |

Source: AMA Physician Master File, 2016

# U.S. Income by Physician Specialty

- **5 highly-paid specialties (Ave. w/ 6 years experience)**

1. Orthopedic surgery - spine (\$628,000)
2. Radiology (\$460,000)
3. Cardiology (\$406,000)
4. Gastroenterology (\$400,000)
5. Urology (\$402,000)

- **5 lower-paid specialties**

1. HIV/infectious diseases (\$228,000)
2. Diabetes/endocrinology (\$218,000)
3. Internal medicine (\$213,000)
4. Pediatrics (\$204,000)
5. Family medicine (\$123,000)



# Outline for Analysis of Physicians

1. How Does Medicare Pay Physicians?
  - Closely related to how the private sector operates
2. A Model of Physician Behavior
  - General enough to encompass likely possibilities
3. An Analysis of Optimal Reimbursement Policy
4. Analyzing Differences across Services
  - Benefit profiles and cost structures

# How Are Medicare's Payments Set?

- Classic **fee-for-service** payment model
  - Each service (j) is assigned a “relative value” that describes the resources required to provide the service
    - An simple office visit may have a “relative value” of around 2.
    - A complex surgery may have a “relative value” above 50.
  - Adjustments are made for differences in costs across areas (i)
  - Congress decides how much Medicare will spend in total each year (t), which then determines the average number of dollars paid out per “relative value unit” provided

$$\text{Reimbursement}_{i,j,t} = \text{Conversion Factor}_{t,c(j)} \times \text{Relative Value Units}_{j,t} \\ \times \text{Geographic Adjustment Factor}_{i,t}.$$



# How Are Medicare's Payments Set?

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- Formula determines how around \$167 billion (in 2015) is divided across regions (i) and services/specialties (j)
- Allocation across services and regions is determined through **regulatory rule making**
  - Congress sets broad guidelines. Department of HHS implements.
  - The guidelines:
    - Quantity metric to be based on estimated input costs
    - Applies across service (RVUs) and areas (GAF)
    - **Quality Bonuses:** Ongoing implementation...

# Aside on Regulatory Rule Making

## ■ The process:

- Congress writes a vague law (“the Secretary shall...”)
- Agencies in the Executive Office of the President interpret the law
- **Proposed Rule:** The proposed interpretation appears in the Federal Register for a period of public comment
- Adversely affected parties submit their complaints
- The agency “responds” to submitted comments.
- Conflicts are adjudicated non-transparently
- **Final Rule:** A revision that passes arbitration appears in the Federal Register
  - At this stage it has the “force of law”

# Implications for Regulatory Rule Making

- Physician offer public comments when they think the fee-setting rules should be revised in their favor:

- *Comment:* One commenter stated that the cost of maintaining imaging equipment exceeds the cost of general medical equipment, and that for imaging modalities the median maintenance cost is approximately 10 percent of the equipment purchase price. The commenter stated that the current 5 percent equipment maintenance rate continues to be an inadequate and outdated reflection of actual maintenance costs. The commenter also stated that information on maintenance costs is readily available to CMS through both public and private sources. The commenter did not identify these sources. **[Summary: My maintenance/depreciation costs are higher than you assume!]**

- *Response:* As we previously stated in the CY 2016 final rule with comment period ([80 FR 70897](#)), we agree with the commenter that we do not believe the annual maintenance factor for all equipment is exactly 5 percent, and we concur that the current rate likely understates the true cost of maintaining some equipment. We also believe it likely overstates the maintenance costs for other equipment. When we solicited comments regarding sources of data containing equipment maintenance rates, commenters were unable to identify an auditable, robust data source that could be used by CMS on a wide scale. As a result, in the absence of publicly available datasets regarding equipment maintenance costs or another systematic data collection methodology for determining maintenance factor, we do not believe that we have sufficient information at present to adopt a variable maintenance factor for equipment cost per minute pricing. We continue to investigate potential avenues for determining equipment maintenance costs across a broad range of equipment items. **[Summary: You have no data to support your claim!]**

# How Are Medicare's Payments Set?

- Details underlying Relative Value Units:
  - Work RVUs
  - Practice Expense RVUs
  - Malpractice Expense RVUs
- Details underlying the Geographic Adjustment Factor
  - **Wage Estimates:** Wages for professionals; Staff wage index
  - **Other Factors:** Office rent index; Malpractice premiums
- **Key Point:** There's a logic to the system, but that doesn't mean the incentives it creates are the incentives we want or need.
  - As implemented, incomes end up relatively low for primary care physicians
  - As implemented, relatively few physicians choose to locate in rural and other low income areas

# Cross-Service Payment Rates

**Chart 7-12. Hospital outpatient services with the highest Medicare expenditures, 2018**

| APC title                                     | Share of Medicare expenditures | Volume (thousands) | Payment rate |
|---|--------------------------------|--------------------|--------------|
| Total   | 52%                            |                    |              |
| All emergency visits                          | 7                              | 13,010             | \$337        |
| Clinic visits                                 | 6                              | 32,462             | 114          |
| Comprehensive observation services            | 5                              | 1,430              | 2,350        |
| Level 3 endovascular procedures               | 3                              | 189                | 10,510       |
| Level 5 musculoskeletal procedures            | 2                              | 135                | 10,123       |
| Level 3 electrophysiologic procedures         | 2                              | 68                 | 18,516       |
| Level 3 drug administration                   | 2                              | 6,544              | 191          |
| Level 2 ICD and similar procedures            | 2                              | 41                 | 30,962       |
| Level 4 musculoskeletal procedures            | 2                              | 224                | 5,606        |
| Level 1 endovascular procedures               | 2                              | 355                | 2,814        |
| Level 3 radiation therapy                     | 1                              | 1,843              | 522          |
| Level 2 imaging without contrast              | 1                              | 8,413              | 114          |
| Level 4 imaging without contrast              | 1                              | 1,828              | 487          |
| Level 1 intraocular procedures                | 1                              | 458                | 1,921        |
| Level 1 laparoscopy and related procedures    | 1                              | 193                | 4,489        |
| Level 3 nuclear medicine and related services | 1                              | 706                | 1,203        |

# How Are the Rates Determined?

- Congress mandated a shift to the current system in 1985
- Phase 1 of “the study” of cross-service cost differences ends in 1988
- Current schedule implemented in 1992
- Updates recommended by the **Relative Value Scale Update Committee (RUC)**

# Setting Relative Value Units

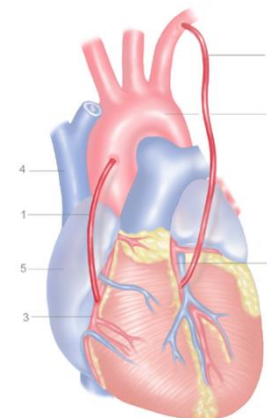
■ For many years, payments were only supposed to account for input costs. But...

- Cross-specialty bargaining on the RUC
- Value-based changes in “input costs”
- The 2010 ACA (Affordable Care Act) including reforms to experiment with quality-based payment
- More quality based payment reform through the 2015 MACRA (the Medicare Access and CHIP Reauthorization Act)

30 minute office visit: Code 99213. Total of 2.14 RVUs when provided outside of a hospital. Payment of \$71 in 2011.



Coronary Artery Bypass Graft (vein 3): Code 33512. Total of 72.68 RVUs. Payment of \$2,400 in 2011.



10/7/13

Advocacy Efforts Continue in Support of Proposed E&M Increases :: Article - The Hospitalist

[The Hospitalist](#)

## Advocacy Efforts Continue in Support of Proposed E&M Increases

From: [The Hospitalist, November 2006](#)

by *Laura Allendorf*

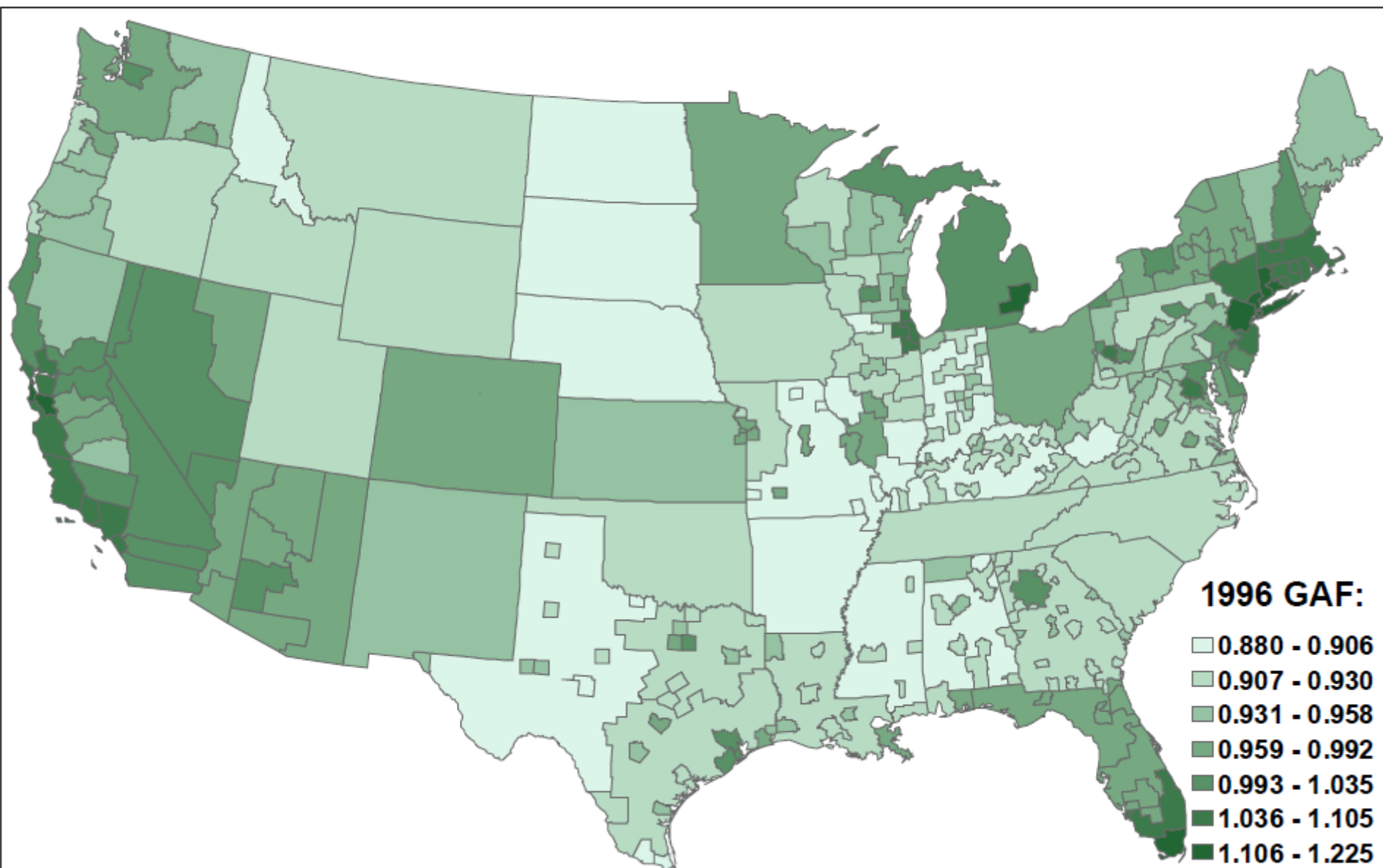
SHM intensified its advocacy efforts over the past several months in support of proposed changes to the Medicare physician fee schedule that would significantly increase payments to hospitalists for many services next year, if adopted by the Centers for Medicare and Medicaid Services (CMS). In June, CMS proposed to make the largest increase in the work relative value units (RVUs) assigned to evaluation and management (E/M) services since Medicare implemented the physician fee schedule in 1992. E/M codes, which represent the time and effort that physicians spend to evaluate patient conditions, have long been viewed as undervalued. Since the release of the proposed rule, SHM has voiced its strong support for CMS' proposed changes. (See “Calculating the Future of Medicare Payments,” Oct., p. 1).

# Medicare Payments and Physician Incomes

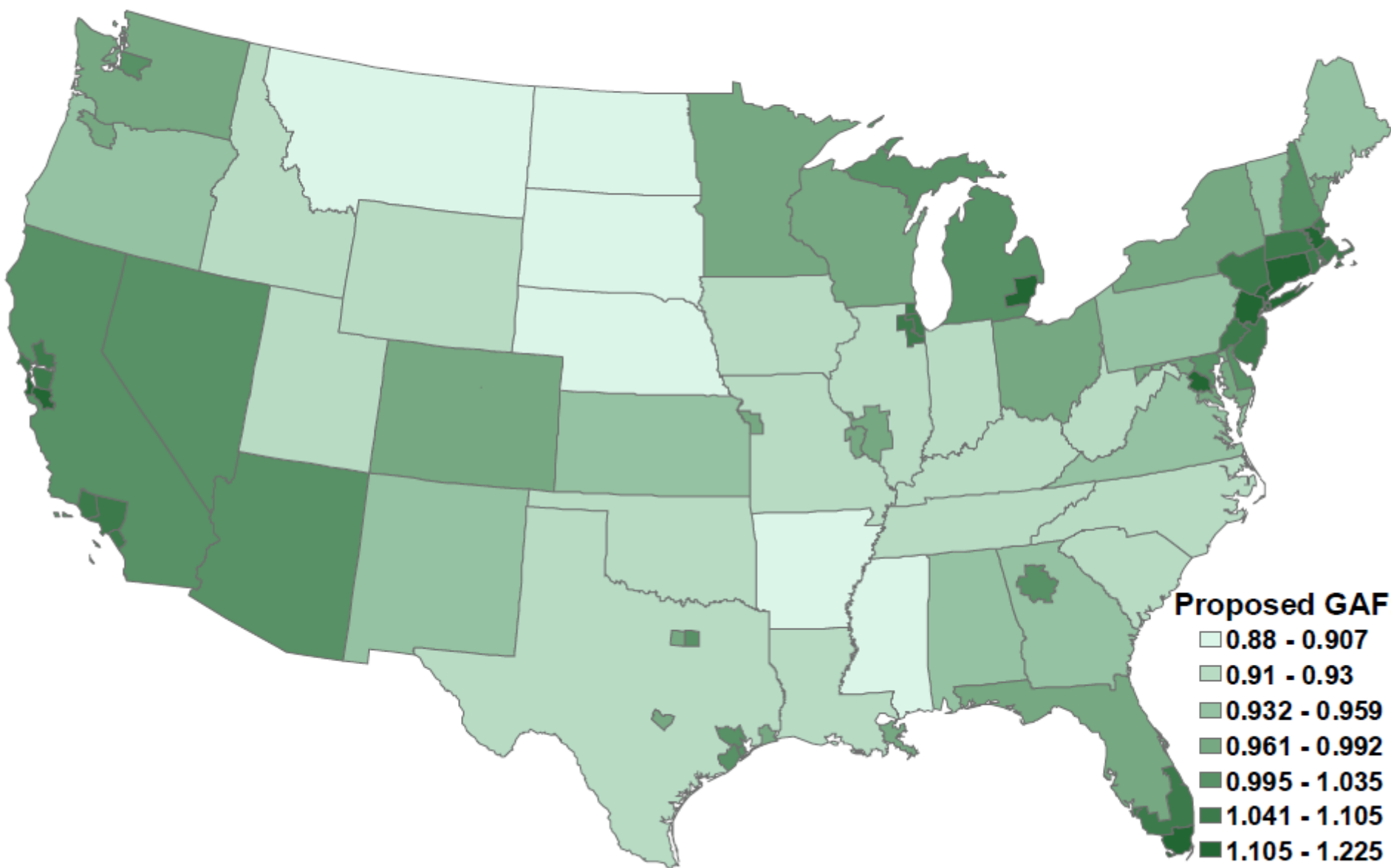
- Reforms to Medicare's payments can have substantial effects on physician incomes
  - Ex 1. Geographic adjustments
  - Ex 2. Payments for surgical procedures relative to other services



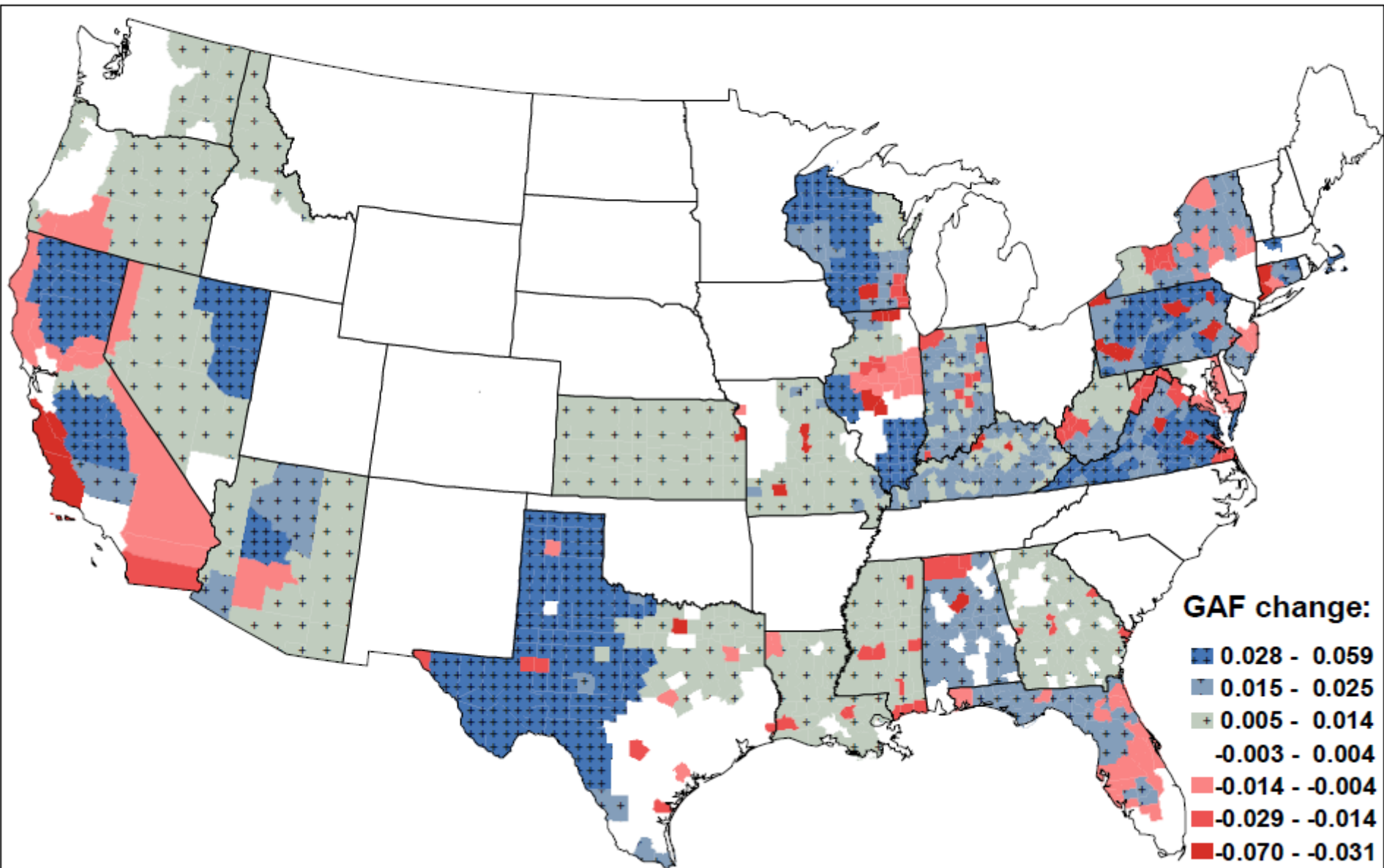
# 1996 Localities, With Geographic Adjustment Factors



# The Great Consolidation: 1997 Localities



# Changes in GAF Due to The Great Consolidation



# Implications for Physician Income

- Ex: Geographic shock for General Practitioner in Madison, Wisconsin.
  - Medicare Revenue: \$200,000
  - Medicare payment shock was -7%
  - Loses \$14,000 in revenue

# Medicare Can Significantly Shift Incomes across Specialties: Ex. The “Conversion Factor”



## History of Medicare Conversion Factors

| Year | Conversion Factor | % Change | Primary Care Conversion Factor   | % Change | Surgical Conversion Factor | % Change | Other Nonsurgical Conversion Factor | % Change |
|------|-------------------|----------|--|----------|----------------------------|----------|-------------------------------------|----------|
| 1992 | \$31.0010         |          | N/A  |          | N/A                        |          | N/A                                 |          |
| 1993 | N/A               |          |  |          | \$31.9620                  |          | \$31.2490                           |          |
| 1994 | N/A               |          | \$33.7180  |          | \$35.1580                  | 10.0     | \$32.9050                           | 5.3      |
| 1995 | N/A               |          | \$36.3820  | 7.9      | \$39.4470                  | 12.2     | \$34.6160                           | 5.2      |
| 1996 | N/A               |          | \$35.4173  | -2.7     | \$40.7986                  | 3.4      | \$34.6293                           | 0.0      |
| 1997 | N/A               |          | \$35.7671  | 1.0      | \$40.9603                  | 0.4      | \$33.8454                           | -2.3     |
| 1998 | \$36.6873         |          | <i>Initially, the Medicare Physician Payment Schedule included distinct conversion factors for various categories of services. In 1998, a single conversion factor was offset by elimination of the work adjustor and increases in the practice expense and PLI RVUs. The reduction in the 2009 conversion factor was offset by elimination of the work adjustor from the third Five-Year Review. The reduction in the 2011 conversion factor was offset by increases to the practice expense and PLI RVUs resulting from the rescaling of those RVU pools to match the revised MEI weights.</i> |          |                            |          |                                     |          |
| 1999 | \$34.7315         | -5.3     |  |          |                            |          |                                     |          |
| 2000 | \$36.6137         | 5.4      |  |          |                            |          |                                     |          |
| 2001 | \$38.2581         | 4.5      |  |          |                            |          |                                     |          |
| 2002 | \$36.1992         | -5.4     |  |          |                            |          |                                     |          |
| 2003 | \$36.7856         | 1.6      |  |          |                            |          |                                     |          |
| 2004 | \$37.3374         | 1.5      |  |          |                            |          |                                     |          |

# Implications for Physician Income

- Ex: Surgery price shock for orthopedic surgeon whose revenue is 75% surgical procedures
  - Total Medicare Revenue: \$400,000
    - Surgery down 11%, other up 6%:
      - Loss of  $\$300,000 \times 11\% = \$33,000$  on surgery side
      - Gain of  $\$100,000 \times 6\% = \$6,000$  on remainder
      - Net loss of \$27,000

# Two points about administration of payment systems

1. It's complicated
  2. Services only make their way into the fee structure after they have been invented and approved
    - This can create difficulties when new services are being invented under emergency circumstances, like during the COVID-19 pandemic.
- See examples on following slides.



# The billing system is complicated and open to interpretation

**PART B**

**J14 A/B MAC**

**CMS**  
CENTERS FOR MEDICARE & MEDICAID SERVICES

**Evaluation and Management Services Billing Guide**

April 2013

**NHIC, Corp.**

82P-820-0018 Version 5.0

94 pages of guidance for billing office visits

Roughly 1 million clerical workers in the U.S. health system.

## Coding “Routine” Office Visits: 99213 or 99214?

Before choosing 99213 for routine visits, consider whether your work qualifies for a 99214.

Peter R. Jensen, MD, CPC

*Fam Pract Manag.* 2005 Sep;12(8):52-57.

Data show that family physicians choose 99213 for about 61 percent of visits with established Medicare patients and choose 99214 only about 23 percent of the time for the same type of visit.<sup>1</sup> So 99213 must be the correct code to use for a “routine” visit, right?

Not necessarily. Many of us may be shortchanging ourselves by reflexively coding a routine office visit as 99213 when the clinical circumstances of the encounter justify the higher-level code. We have developed coding habits based on the misconception that repetitive, routine clinical thought patterns must automatically translate into low-complexity medical decision making. We simply do not appreciate the value of our cognitive labor. The best defense against this form of undercoding is a basic understanding of the medical decision making required for 99213 and 99214 visits.



Payment Difference in 2010: 2.81/1.9, or 48%



Responding to the pandemic has required incorporating rules and payments for telehealth, COVID-19 tests, and COVID-19 vaccines.



COVID-19 Frequently Asked Questions (FAQs) on Medicare Fee-for-Service (FFS) Billing

<https://www.cms.gov/files/document/medicare-telehealth-frequently-asked-questions-faqs-31720.pdf>

166 pages of guidance (from section A to QQ) on “Frequently Asked Questions” related to billing during the pandemic



Home > Medicare > COVID-19 > Medicare COVID-19 Vaccine Shot Payment

### Medicare COVID-19 Vaccine Shot Payment

Medicare payment rates for COVID-19 vaccine administration will be \$28.39 to administer single-dose vaccines. For a COVID-19 vaccine requiring a series of 2 or more doses, the initial dose(s) administration payment rate will be \$16.94, and \$28.39 for the administration of the final dose in the series. These rates recognize the costs involved in administering the vaccine, including the additional resources involved with required public health reporting, conducting important outreach and patient education, and spending additional time with patients answering any questions they may have about the vaccine. These rates will also be geographically adjusted.

Note: these rates don't apply for entities that are reimbursed for vaccines at reasonable cost.

<https://www.cms.gov/medicare/covid-19/medicare-covid-19-vaccine-shot-payment>



Home > Medicare > Telehealth > List of Telehealth Services

### List of Telehealth Services

List of services payable under the Medicare Physician Fee Schedule when furnished via telehealth.

[Covered Telehealth Services for PHE for the COVID-19 pandemic, effective March 1, 2020 \(ZIP\)](#) - Updated 12/02/2020

<https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes>

# Final Facts on Next Slides...

1. The U.S. pays specialists quite well, has experienced rapid growth in the supply of specialist services, and has a high ratio of specialists to GPs.
2. Prevalence of surgical procedures is correlated with variation in spending
3. Variation in spending is uncorrelated with standard measures of quality
  - The measures include subjective evaluation, measures of health outcomes, and measures of health inputs
- Together these facts are suggestive that we have many specialists due to our payment system, but that intensive care may not add high value on the margin.

# U.S. Income by Physician Specialty

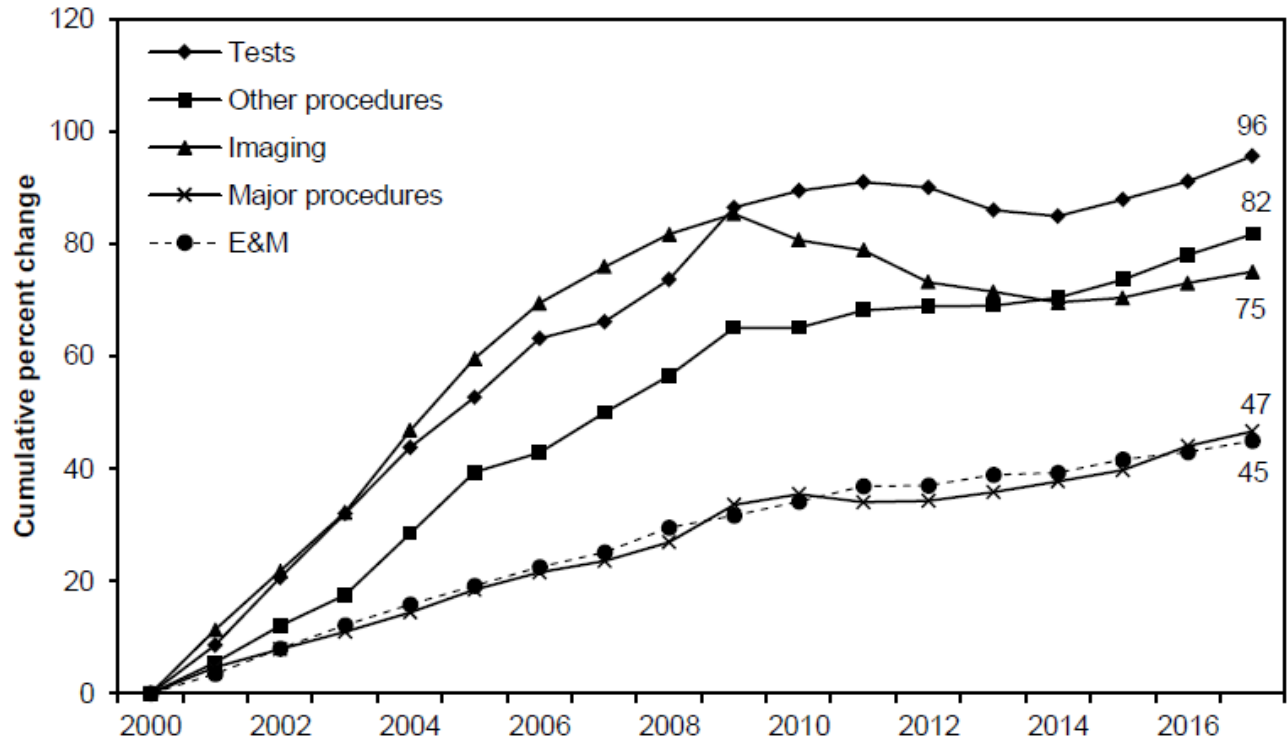
- **5 highly-paid specialties (Ave. w/ 6 years experience)**

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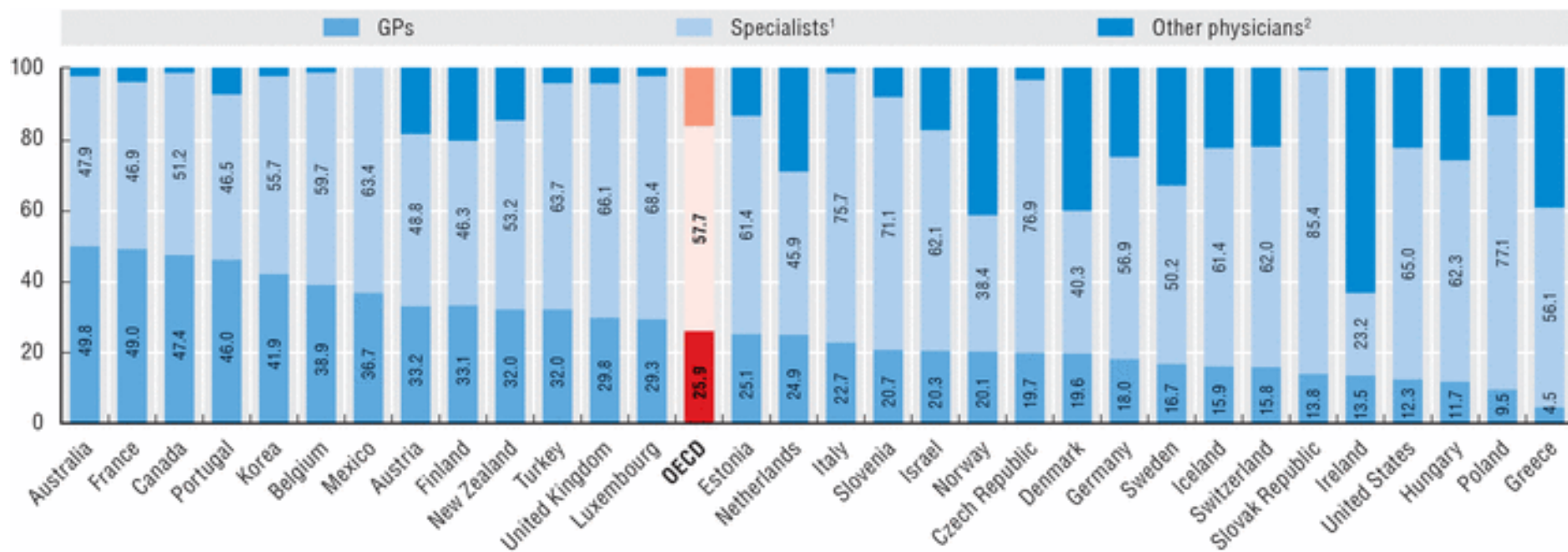
**Chart 7-2. Growth in the volume of clinician services per fee-for-service beneficiary, 2000–2017**



Note: E&M (evaluation and management). "Volume" refers to the units of service multiplied by relative value units (RVUs) from the fee schedule for physicians and other health professionals. RVUs account for the relative costliness of the inputs used to provide clinician services. Volume for all years is measured on a common scale, using RVUs for 2017. Volume growth for E&M from 2009 to 2010 is not directly observable because of a change in payment policy for consultations. To compute cumulative volume growth for E&M through 2017, we used a growth rate for 2009 to 2010 of 1.85 percent, which is the average of the 2008 to 2009 growth rate of 1.7 percent and the 2010 to 2011 growth rate of 2.0 percent.

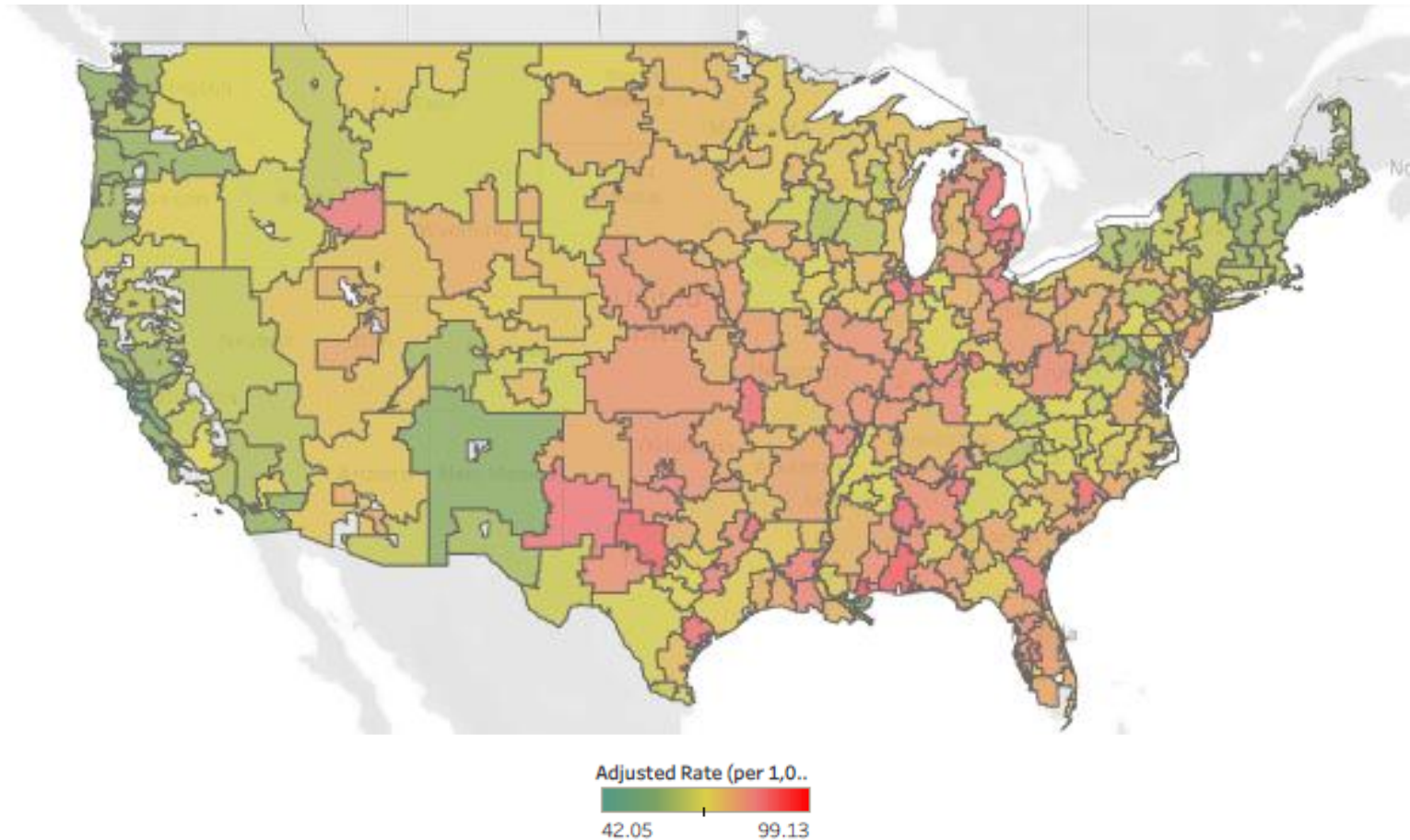
Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

# Cross-Country Breakdown of Physicians into GPs and Specialists



# Surgical Discharges Per Medicare Enrollee across the United States

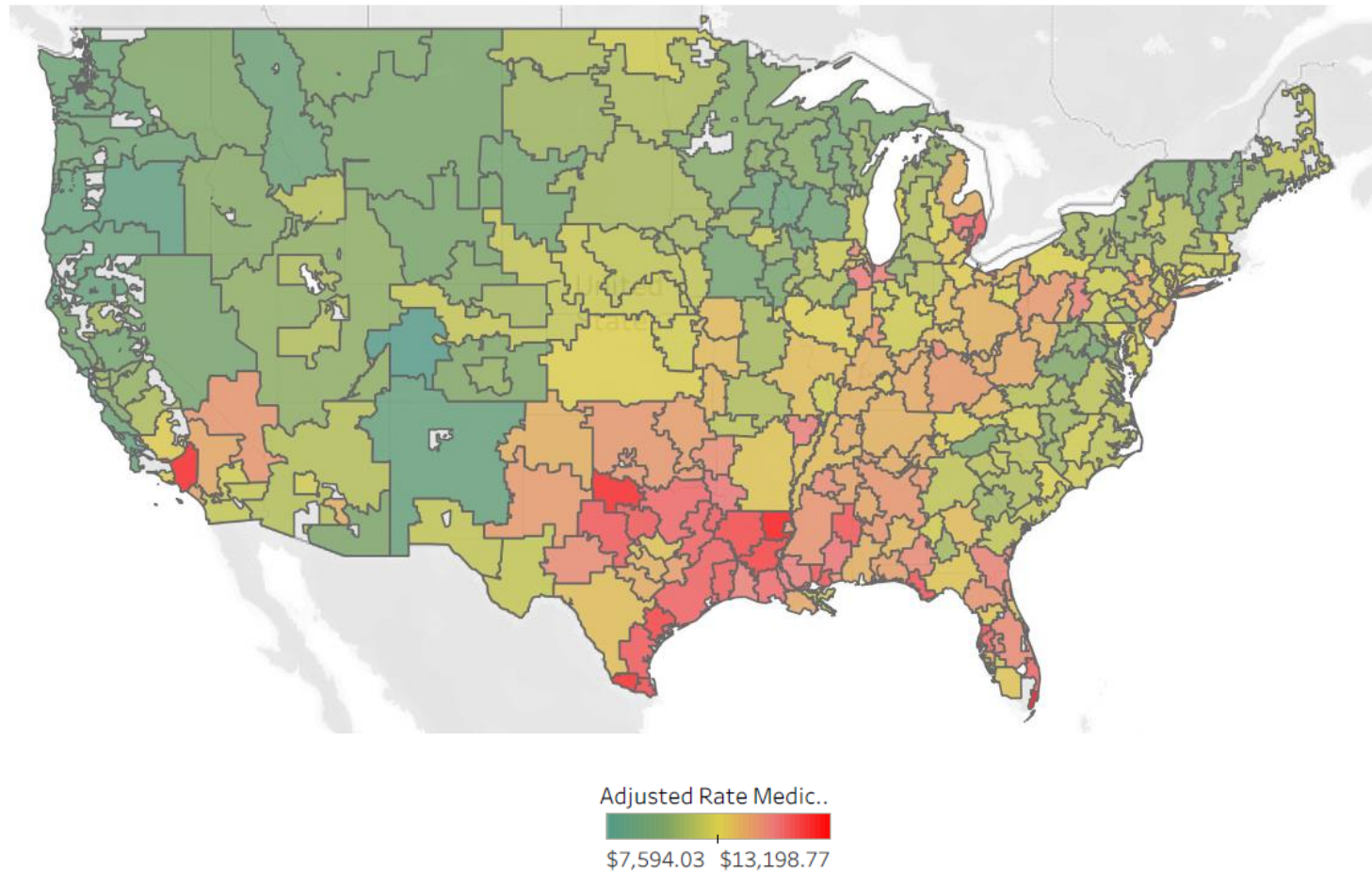
Map: All Surgical Discharges per 1,000 Medicare Enrollees, by HRR (2015)





# Health Spending Varies Substantially Across Areas of the United States and is Correlated with High Use of Surgery

Map: Price-Adjusted Total Medicare Reimbursements per Enrollee (Parts A and B), by HRR (2017)  
(Price, Age, Sex, and Race adjusted)



# Spending and Satisfaction Are Less Strongly Correlated than You Might Hope!

## Quintiles from Low to High Mean Per Capita Spending, (%)

| Respondent Rating                  | 1<br>\$5209 | 2<br>\$5887 | 3<br>\$6405 | 4<br>\$7034 | 5<br>\$8522 | p-value |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|---------|
| My health care better than average | 33%         | 31%         | 29%         | 35%         | 32%         | 0.67    |
| Overall rating of care is 9 or 10  | 63%         | 57%         | 57%         | 57%         | 55%         | 0.01    |



# Concluding Points

## ■ Recap:

- Changes in Medicare's payment model can significantly shift resources across regions and specialties
- Medicare pays on an "average cost" basis. We'll see that this can be problematic for capital-intensive services.
- Bill processing is complicated and can be subject to both honest error and fraud

## ■ Next Time:

- A model of physician behavior that allows us to think about optimal reimbursement policy

# Goals for Next Lectures: Further Understand...

1. Implications of having a “fixed fee schedule”
  - Billing complexity and billing norms
  - Differences in physicians’ “practice styles”
    - Focus on their relative taste for income and patient health
  - Differences in service benefit and cost profiles
2. Evolution of spending across types of services
  - Formula’s implications for differences in incomes across specialties
  - Balance between general practitioners and specialists