

The Medicare Fee Schedule

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September 26, 2017

Outline of Points

- The level of fees matters to how patients are treated
- The need to allocate joint cost in a fee-for-service system gives incentives to over treat
- Heading toward a mixed fee-for-service and capitation system reduces that incentive

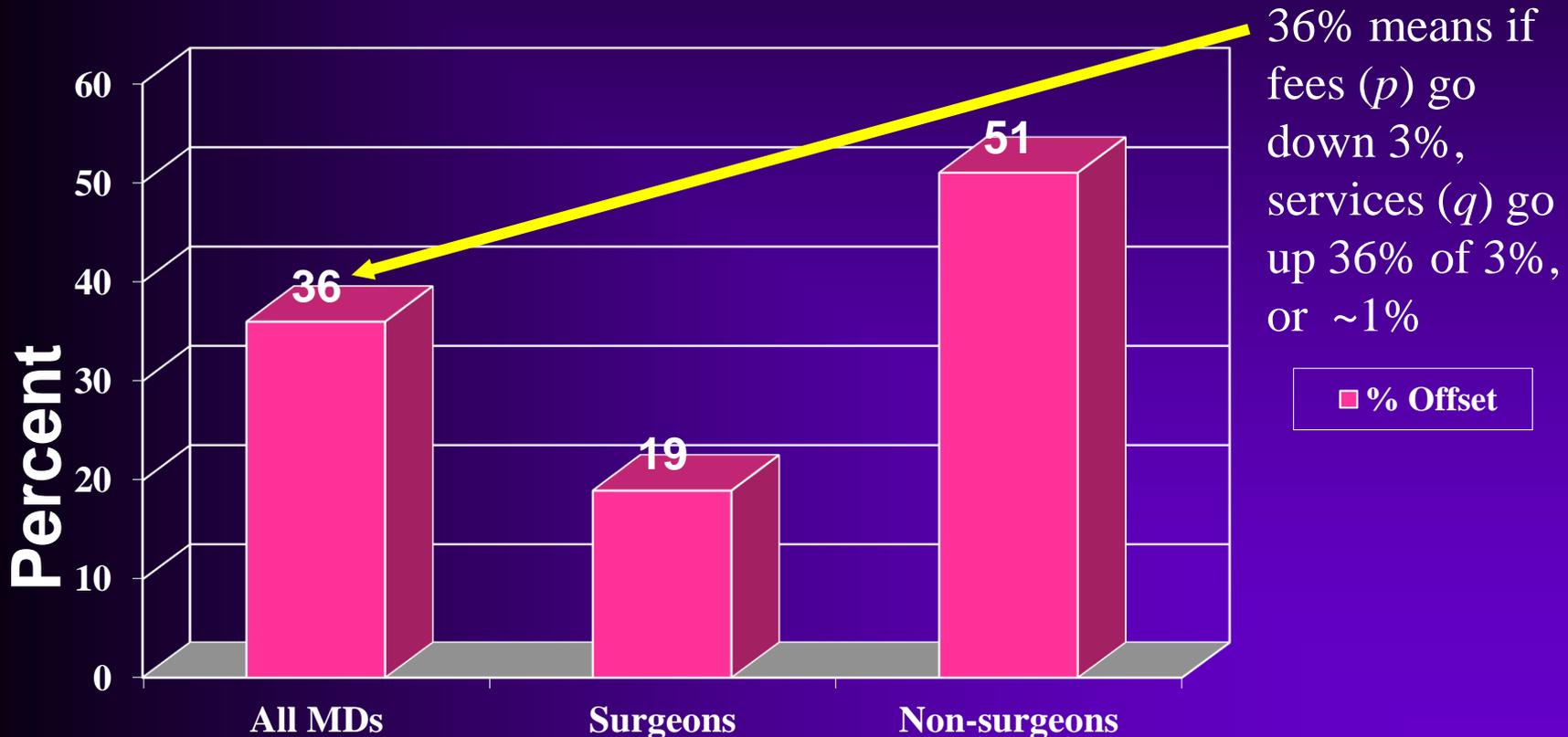
The Level of Fees Matters

- Standard economic theory:
 - ◆ An increase in a fee that affects a small part of a physician's income leads to an increase in the service and conversely (“substitution effect”)
 - ◆ An increase in a fee that affects a large part of a physician's income leads to a decrease in the service and conversely (“income effect”)

What Do the Data Show?

- Analysts regressed the Δ quantity of services in 1991-1992 as a function of the Δ fees in 1991-1992, the Δ beneficiaries in 1991-1992, and the trend in quantity of services, 1986-90
 - ◆ The unit of observation is specialty within state
 - For example, cardiologists in California
 - ◆ The coefficient on Δ fees is *negative* (the “offset effect”); the quantity of physician services fell if fees rose and conversely; income effect dominant

Estimates of the Offset Effect



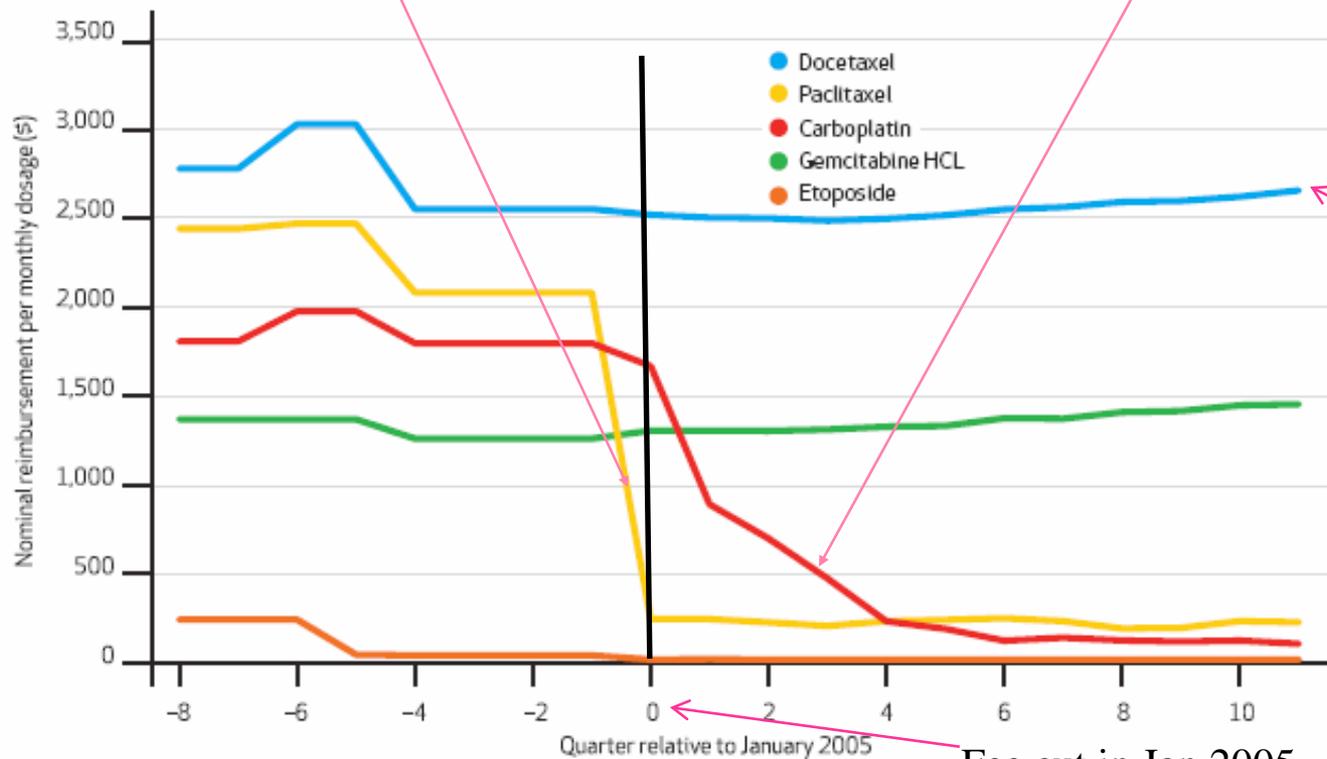
Despite difference between surgeons and non-surgeons, estimated effects are larger on procedures than on visits.

Source: Physician Payment Review Commission, 1992, p. 126.
t statistics on the 36, 19, and 51 values are 5.5, 1.2, and 7.8 respectively.

January 2005: Fees Fell (a Lot!) on 2 Cancer Chemo Agents

EXHIBIT 2

Change In Nominal Quarterly Chemotherapy Reimbursement Rates Relative To The January 2005 Payment Change



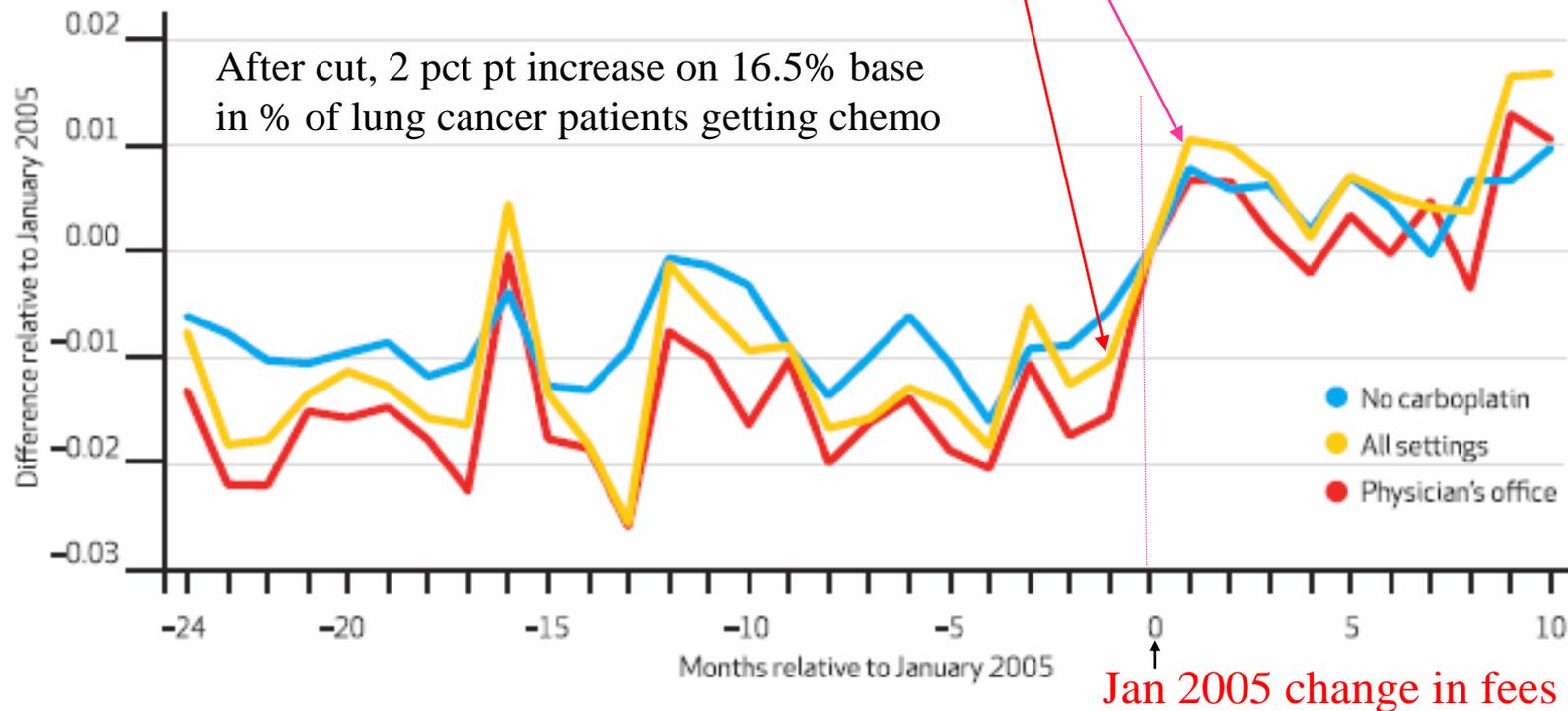
Little fee change for Docetaxel

Fee cut in Jan 2005

SOURCE Centers for Medicare and Medicaid Services Average Sales Price Drug Pricing Files.

Fee Cut Led to a >10% Rise in Lung Cancer Patients Getting Chemo*

Change In The Share Of Beneficiaries Given Chemotherapy, By Month Of Diagnosis Relative To The January 2005 Payment Change



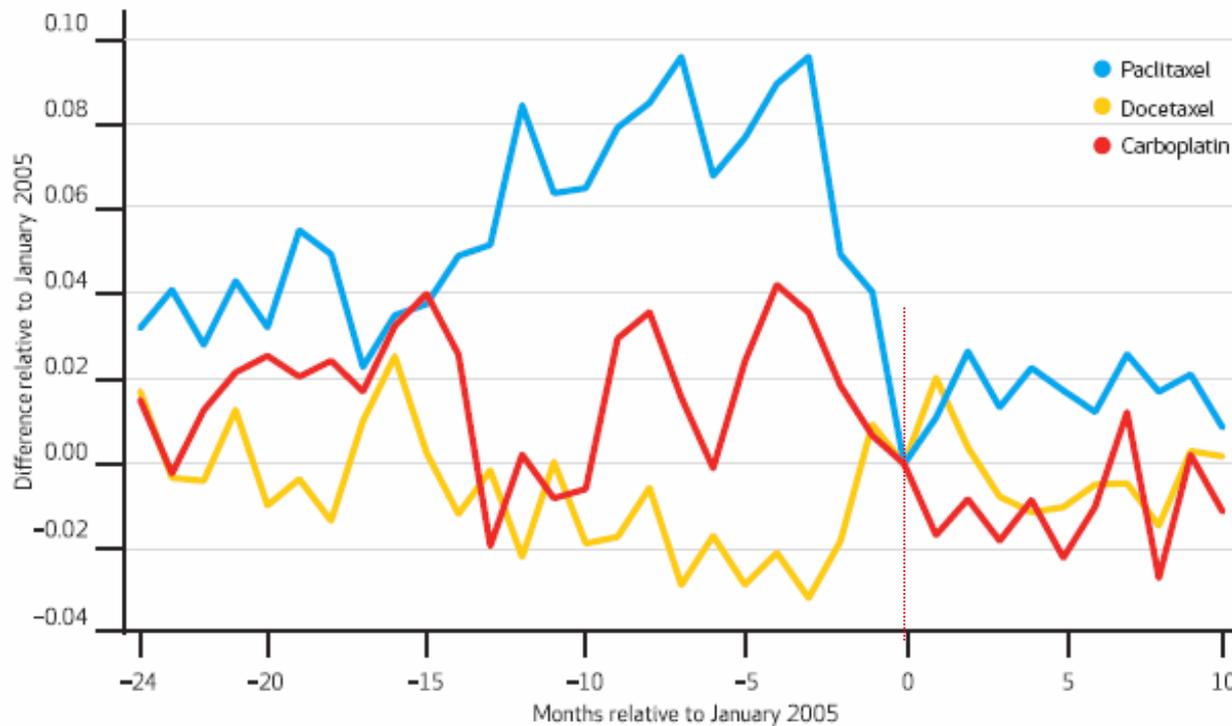
SOURCES Centers for Medicare and Medicaid Services Average Sales Price Drug Pricing Files; and Medicare claims data for beneficiaries with newly diagnosed lung cancer.

*Smaller change in fees at -12 months also led to an increase.
See notes for more. Source: Jacobson, et al., Health Affairs, 2010

Substitution Away from Agents Whose Price Fell Relatively More

EXHIBIT 4

Change In The Use Of Paclitaxel, Docetaxel, And Carboplatin, By Month Of Diagnosis Relative To The January 2005 Payment Change

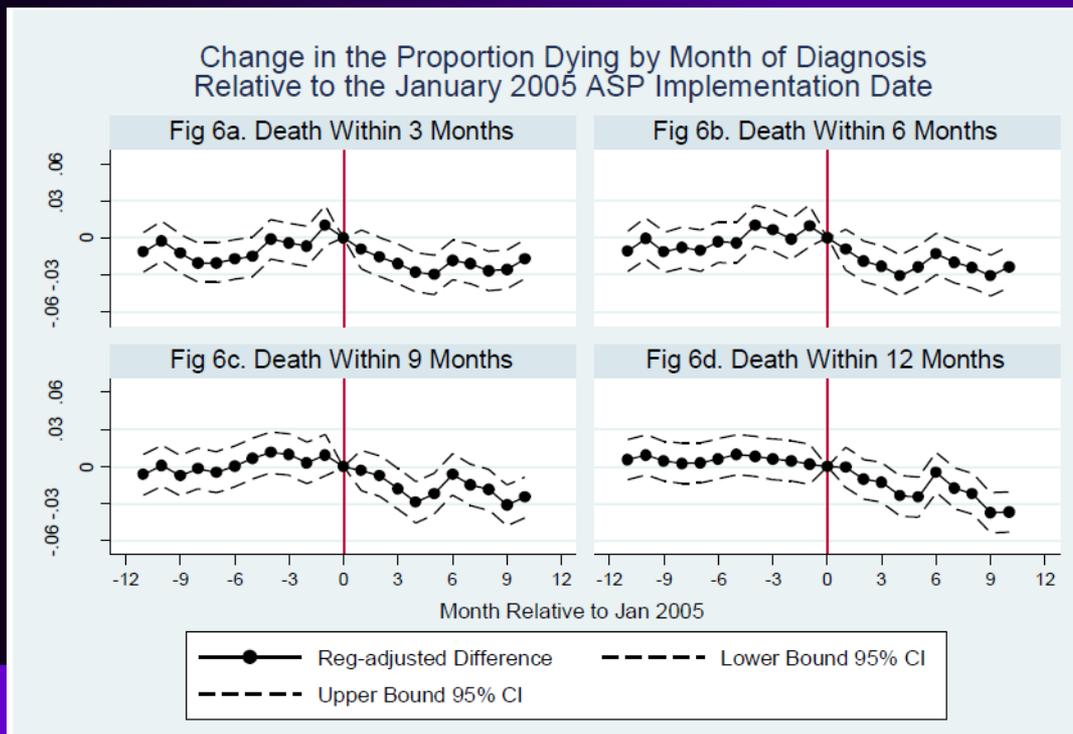


SOURCE Centers for Medicare and Medicaid Services, Medicare claims data for beneficiaries with newly diagnosed lung cancer.

See blue line
and red line vs
yellow line

An Unusual Twist

- The usual literature implies physician induced demand is welfare decreasing, but more chemotherapy *decreased* mortality



Source: Jacobson, et al.,
NBER Working Paper
19247.

A Third Study

- Clemens and Gottlieb* (CG) analyzed Medicare fee changes from the consolidation of geographic areas; in 1997 some counties that had been in a low fee area because of low input prices were moved into a higher fee area and conversely

A Third Study, cont.

- Unlike the above data, CG find a strong *positive* response to changes in fees; their estimated long-run supply elasticity is +1.5 and is even higher for more elective services
- My interpretation: Small fee changes in CG meant the substitution effect dominated
 - ◆ The range of fee change in CG was -4% to +4%

Joint Costs

- Physicians have costs that are joint, meaning they are not related to a unique service; examples are rent and utilities
 - ◆ In Medicare speak they are part of practice cost
- In a pure fee-for-service reimbursement system, however, they must be allocated to specific services or the physician will not be able to cover these costs

Joint Costs, cont.

- Allocating the joint costs to specific services, however, means that fees, or marginal revenue, will be greater than marginal cost (not counting the value of the physician's time)
- In other words, the physician can earn more money by doing more*
- Further, the allocation is inevitably arbitrary

*Assuming that whatever is done carries a fee. There is the theoretical possibility that the arbitrary allocation of joint cost does not cover the true marginal cost, but that should be rare.

Where to from Here?

- Fees closer to marginal cost reduce the incentive for overutilization, but just paying marginal cost means joint or fixed costs will not be covered
- The answer is to move toward a mixed or partial capitation system with lower fees than the present system and a lump sum payment to the practice for its patients

Where to? cont.

- Payment is in fact moving in this direction
 - ◆ The patient centered medical home is a lump sum payment often without a fee reduction;* it requires the practice to invest in new capabilities, but those that do must think there is an adequate return to doing so
 - ◆ Larger delivery systems and physician groups are taking contracts with financial risk, although there is little in the academic literature about their mechanisms for managing this risk

*But going forward the growth in fees may be lower.

Takeaways

- The level and structure of fees affect the care patients get
- Medicare has to set fees, but in doing so will inevitably introduce distortions in the care patients get
- Moving to a mixed system of lower fees and lump sum payments should reduce the distortions



Reviewing Research on Developing Work RVUs in the Medicare Physician Fee Schedule

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Presentation at

The Medicare Physician Fee Schedule and Alternative Payment Models, Washington, DC

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Basics of Setting Work RVUs

- Elements of physician Work RVUs
 - Time (starts from physician surveys)
 - Technical skill
 - Physical effort
 - Mental effort (judgment)
 - Stress
- Unit of service
 - HCPCS/CPT codes
 - Global surgeries of various lengths
 - Composite services of a specific duration

Is Physician Time Measurement Accurate?

- Time explains 70-80 percent of the variation in Work RVUs, so getting it right is important
- Time also factors in to how indirect practice expenses are allocated across services
- Errors in time measurement, if they are not random, will lead to errors in Work and Practice Expense RVUs across services
- **SPOILER ALERT: RESEARCH SHOWS THAT THERE APPEAR TO BE ERRORS IN PHYSICIAN TIME THAT ARE NOT RANDOM ACROSS SERVICES**
- Changes in Work RVUs related to assumptions about Intraservice work per unit of time (IWPUT) -INTENSITY

Early research on physician time estimates across services or service categories

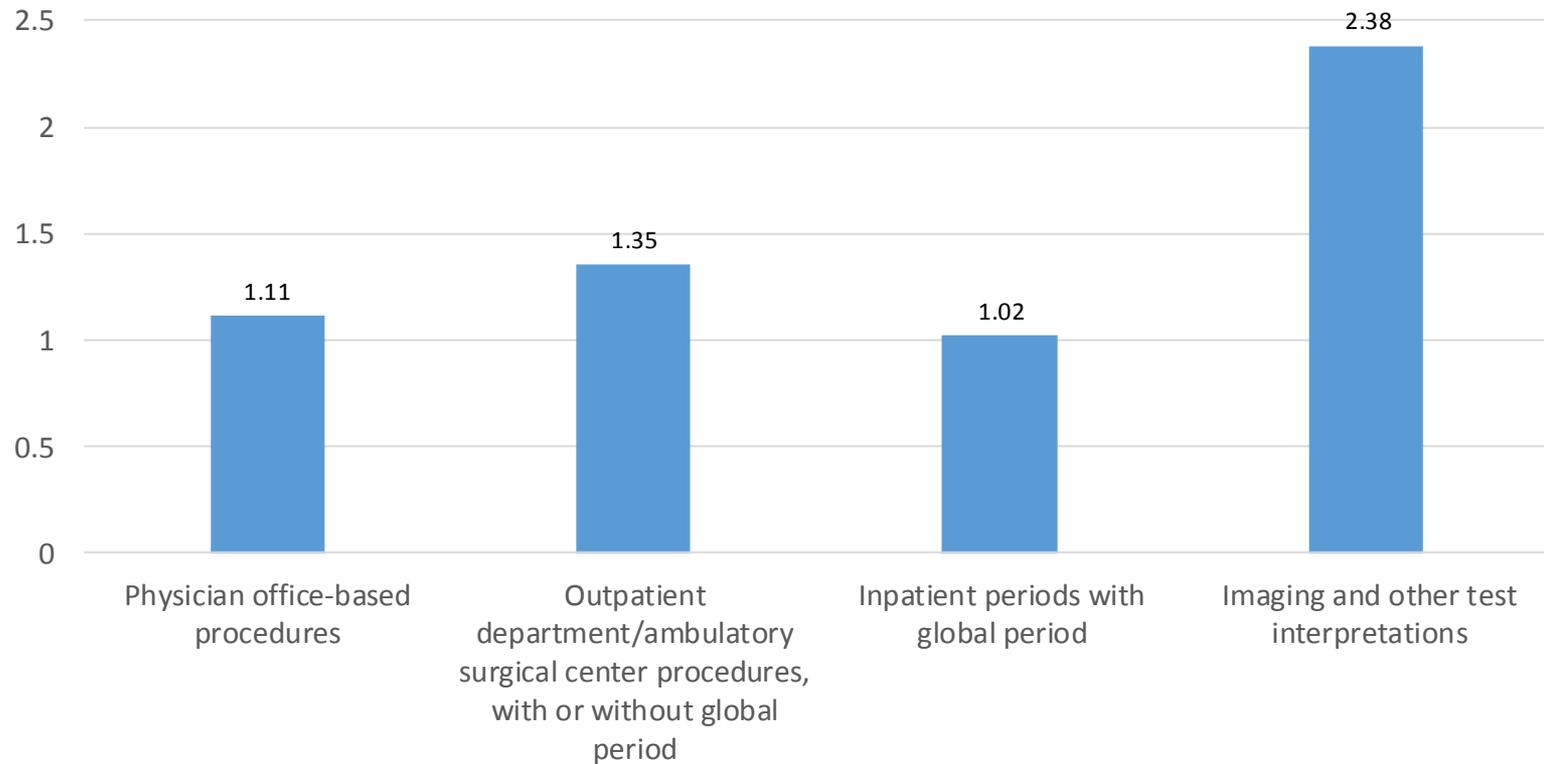
- NAMCS showed Medicare times for visits were greater than survey times.
 - 9% diff for established patients and 32% diff for new patients
- OR logs also showed Medicare times were overstated
 - 40% of surgeries have a difference of 30 minutes or more
- MedPAC examined this issue in the context of studying physician productivity and found that the fee schedule over-estimates actual time spent by physicians, in total
 - More so for specialties that are procedurally oriented

More recent evidence on physician time

- CMS sponsored two independent studies to develop approaches to validating Work RVUs
- In 2015, Rand developed a model of Work RVUs based (mostly) on non-CMS data for surgical procedures
 - 83 percent of surgeries had shorter intra-service times than existing Medicare times
- In 2016, Urban Institute, RTI and SSS collected data on physician time for 60 services from 3 health systems
 - Medicare times >10% above empirical time for 42 services
 - Medicare times >10% below empirical time for 8 services

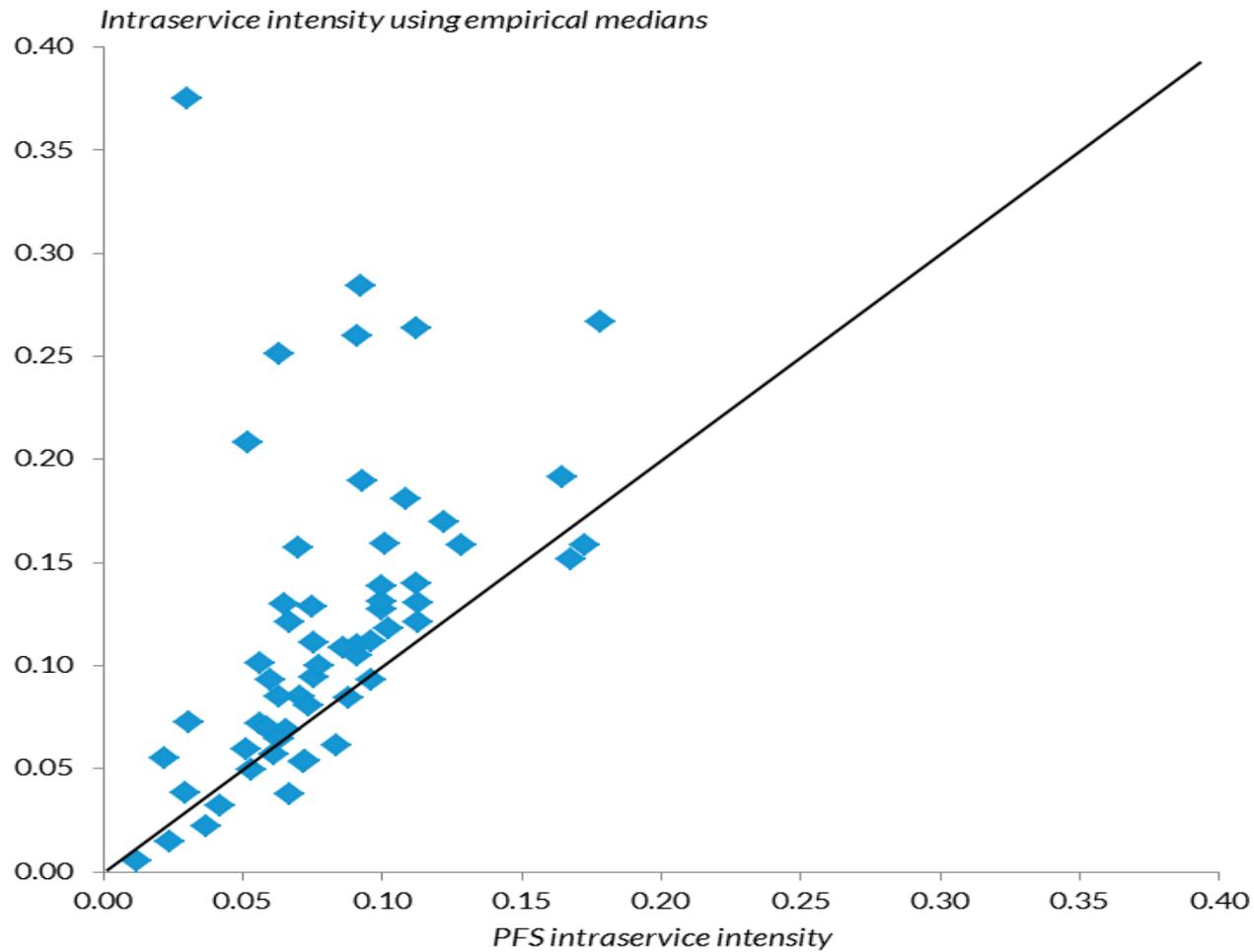
Time Discrepancies are not uniform across types of services

Ratio of PFS Time to Median Empirical Time



Source: UI/SSS analysis of primary data and PFS 2016 Final Rule (80 FR 70885) public use files.

PFS Intraservice Intensity versus Intensity Using Empirical Medians at the HCPCS Level



Source: UI/SSS analysis of primary data and PFS 2016 Final Rule (80 FR 70885) public use files.

Note: One code with intensity near 1.5 (based on the empirical time estimate) was omitted from the chart to preserve the scale.

Impact of empirical time on service intensity:

PFS intensity of 0.07

(selected services)

Service Descriptor (HCPCS)	WRVU	PFS Time	Empirical Time	Empirical Intensity
Partial removal of colon (44143)	10.80	150	203	0.05
Treat thigh fracture (27244)	4.91	75	71	0.07
Lapro. Cholecystectomy (47562)	5.63	80	66	0.09
Revise hip joint repl. (27134)	15.96	240	132	0.12
MRI brain stem w/o dye (70551)	1.26	18	8	0.16

Source: UI/SSS analysis of primary data and PFS 2016 Final Rule (80 FR 70885) public use files.

Unit of Service: HCPCS/CPT

- Clinical expert review shows service descriptions are defined inconsistently and sometime exaggerate the physician work.
 - Can describe activities that physicians are no longer providing on their own or at all
- Pre-service work may be included in other services
 - For example, in a previous or concurrent office visit
- Sometimes the chosen vignettes as not-representative of the typical case
 - Bias may be either direction, but usually time is longer typical

Unit of Service: Global Periods for Surgery

- Payments for global periods are based, in part, on the number of visits provided during a specified period (0, 10, or 90 days, depending on the procedure)
- Studies show surgeons often provide fewer visits than assumed, resulting in unnecessary payments
- RAND estimated a 22% reduction in physician work by eliminating these “visits”—\$1.5B in 2012 payments
- CMS tried to address this problem by requiring separate billing for medically necessary visits by 2018
- MACRA stopped the payment change, but CMS/RAND is collecting data on visits that could create better valuations

Unit of Service: Duration Based Services

- Composite services that do not require a face-to-face interaction with the patient during the service
- Part of the effort to address concerns that RBRVS does not adequately compensate for primary care
- Recent Medicare examples
 - Chronic Care Management (month)
 - Complex Chronic Care Management (month)
 - Transitional Care Management – moderate complexity (14 days)
 - Transitional Care Management – high complexity (7 days)

Conclusion

- The empirical data show that time is not measured accurately across all services and that this likely results in errors in Work RVUs
- Service definitions also contribute to errors in Work RVUs, either at the CPT level or the global period for surgery
- Building APMs on top of these errors in RBRVS will simply perpetuate them

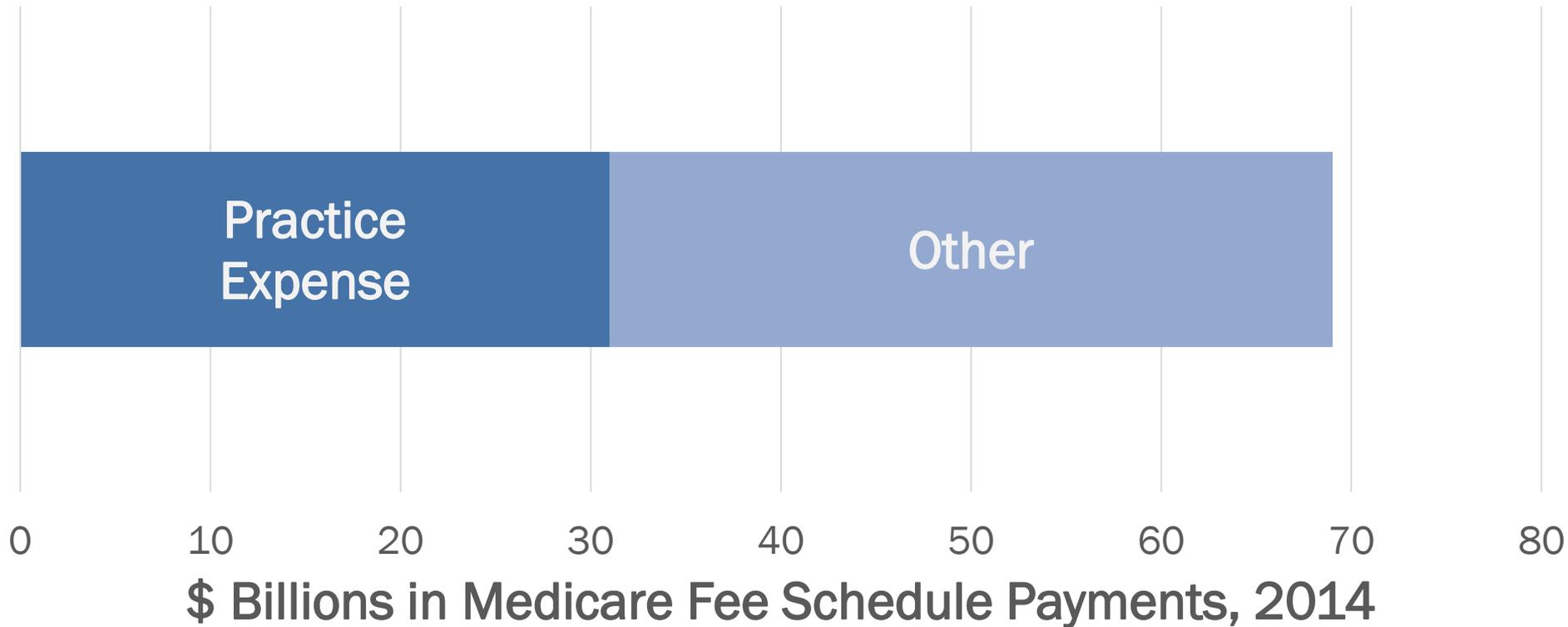
Valuation of Practice Expense in the Medicare Physician Fee Schedule

Peter Hussey

Sept. 26, 2017



Practice Expense Represents Almost Half of Medicare Fee Schedule Payments



Electricity
Internet
Rent
Administration

Equipment

Supplies



Electricity

Internet

Rent

Administration Equipment

Supplies



Colonoscopy Direct Cost Inputs (HCPCS 45378)

- Labor: RN/LPN/MTA
 - 9 minutes pre-service
 - 83 minutes intraservice
 - 3 minutes postservice



Colonoscopy Direct Cost Inputs (HCPCS 45378)

Equipment	Useful Life (Years)	Price (\$)	Time (Mins.)
videoscope, colonoscopy	3	23,650	69
suction machine (Gomco)	10	743	39
endoscope disinfectant, rigid or fiberoptic, w-cart	7	18,802	30

Colonoscopy Direct Cost Inputs: Supplies

Supply Item	Count
pack, cleaning and disinfecting, endoscope	1
scrub brush (impregnated)	1
endoscope anti-fog solution	1
cup, biopsy-specimen non-sterile 4oz	1
paper, photo printing (8.5 x 11)	1
gauze, non-sterile 4in x 4in	1
tubing, suction, non-latex (6ft uou)	1
water, distilled	5
lubricating jelly (K-Y) (5gm uou)	4
shoe covers, surgical	3
mask, surgical, with face shield	3
gown, staff, impervious	2
drape, non-sterile, sheet 40in x 60in	1
cap, surgical	3
pack, minimum multi-specialty visit	1
syringe 50-60ml	1
canister, suction	1
endoscopic cytology brush	1

Psychoanalysis Direct Cost Inputs (HCPCS 90845)

- Labor: none

Equipment	Useful Life (Years)	Price (\$)	Time (Mins.)
One Couch and Two Chairs	10	1,497	45

Supply Item	Count
tissue (Kleenex)	0.05 box

Direct Cost Data Sources

Values are refined or added based upon CMS review of recommendations:

- Clinical Practice Expert Panels (1995)
 - AMA's Practice Expense Advisory Committee (1999-2004)
 - AMA's Practice Expense Review Committee (2004-2007)
 - AMA/Specialty Society Relative Value Scale Update Committee (RUC) (2007-present)
- Currently, the RUC makes recommendations to CMS based on recommendations from the Practice Expense Subcommittee
 - Information generated by specialty society panels based on reference procedures

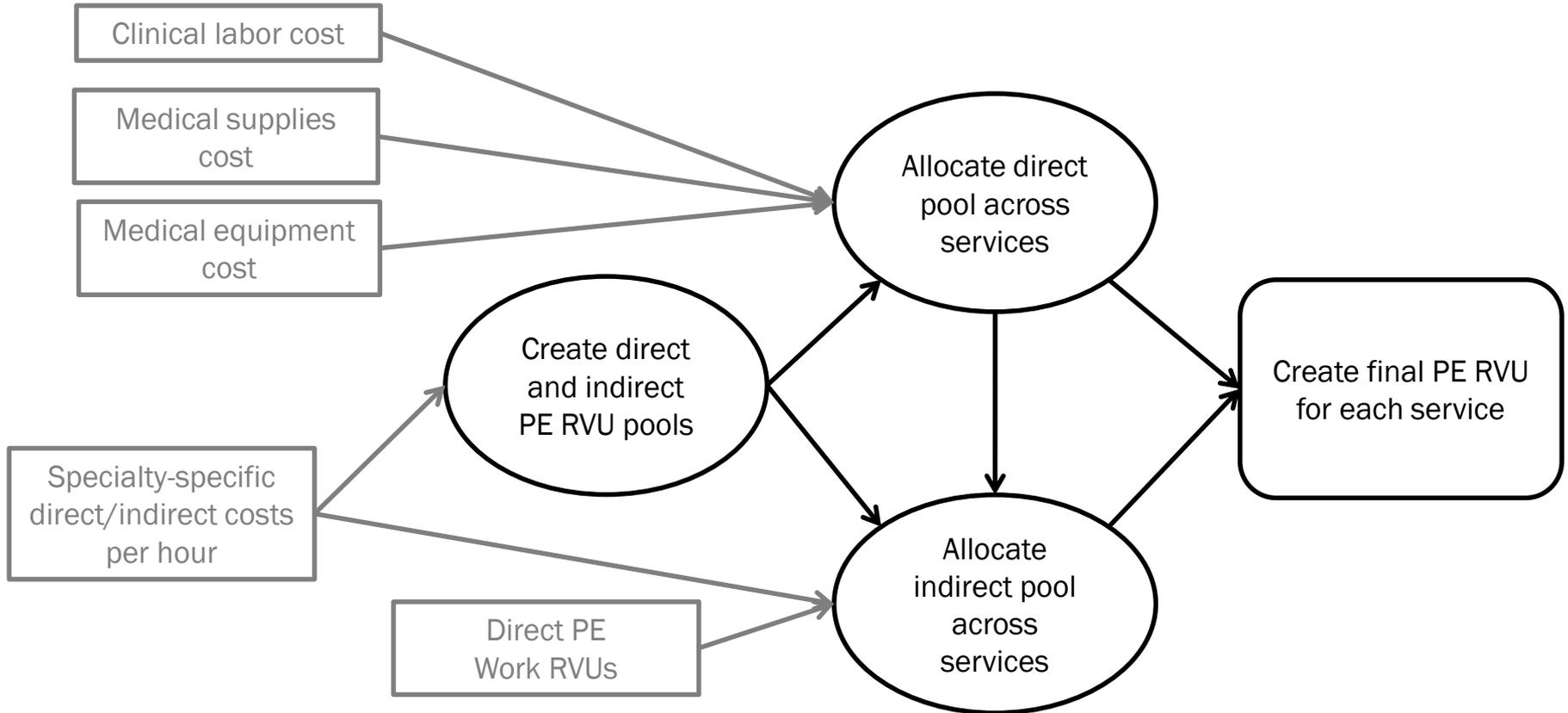
Indirect Cost Data Sources

- Derived from AMA's Physician Practice Information Survey (PPIS) (2007-2008)
 - Used a sample of self-employed practitioners and select non-physician practitioners
 - AMA has no plans to update the survey
- Supplementary data for some specialties is available while those not represented are cross-walked with similar specialties

Site of Service

- When a physician provides a service in a facility, the costs of the clinical personnel, equipment, and supplies are incurred by the facility, not the physician
- There are both “facility based” and “non-facility based” PE RVUs
 - Facility-based PE RVUs are typically lower than non-facility based PE RVUs
 - E.g., in 2015, a diagnostic colonoscopy done in an office had a PE RVU of 6.78 whereas the facility had a PE RVU of 1.94

PE Valuation Approach



Issues with PE Valuation

- Accuracy and updates to direct and indirect inputs
- False precision; engineered for things that are easily counted
- Facility/non-facility site of service difference may not reflect current practice arrangements
- Different relative values than hospital outpatient departments, ASCs

Some Possible Policy Responses

- Update inputs
- Change facility adjustment
- Reengineer/simplify valuation approach

Update Inputs

- Time to invest in a new survey of physician practices?
 - PPIS is 10 years old, not representative of current practice arrangements
 - Other existing surveys (MGMA, NAMCS, AHRQ MOS) do not fill the gap

Berk, ML. The Need for Ongoing Surveys About Physician Practice Costs. *Health Affairs* 35(9): 1647-1650.

Facility Adjustment

- Do physicians furnishing services in a facility setting also maintain an office?
- 33 percent of physicians in 2014 worked directly for a hospital or in a practice wholly or partially owned by a hospital
 - 29 percent in 2012
 - 16 percent in 2007/2008

Reengineer/Simplify Valuation Approach

- Services with little direct cost inputs have low indirect cost allocation
 - E.g., \$0.72 difference for non-facility psychotherapy compared with facility
- 2018 proposed rule creates a floor for indirect PE based on a reference visit code (99213)

Reengineer/Simplify Valuation Approach

- Improve the allocation of indirect costs, for example:
 - Allocate indirect costs on the basis of clinician time and direct costs (rather than work)
 - Remove specialty-specific factors
 - Primary care payments increase (internal medicine, +6%), specialist payments generally decrease

Zuckerman and Merrell. Realign Physician Payment Incentives in Medicare to Achieve Payment Equity among Specialties, Expand the Supply of Primary Care Physicians, and Improve the Value of Care for Beneficiaries. Prepared for ASPE.

Reengineer/Simplify Valuation Approach

- CMS also values direct costs in the Outpatient Prospective Payment System (OPPS)
- Many health care services can be provided in multiple settings, and the direct costs for providing a service may be similar regardless of the setting
- Possible to use OPPS cost data to value direct costs in the PFS would align relative direct costs across these two payment systems?

Wynn, BO, Hussey, PS, Ruder T. “Policy Options for Addressing Medicare Payment Differentials Across Ambulatory Setting.” RAND for ASPE/DHHS (2011).

Summary

- Practice expense valuation has not received much attention
 - Little available research
- Valuations could be improved, but would require significant investment
 - Simple updates are unlikely to address all valuation issues

