Physician Practice Information Survey

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Centers for Medicare & Medicaid Services (CMS) Practice Expense Relative Value Unit (RVU) Methodology

Complex methodology, relying on the following data sources:

- Direct practice cost estimates at individual code level
- Bureau of Labor Statistics for clinical staff compensation
- Pricing studies for medical supplies and equipment
- Medicare claims data
- Work relative value units
- The American Medical Association's (AMA's) practice cost survey data and supplemental survey data

Medicare Economic Index (MEI)

- The MEI is a measure of practice cost inflation that was developed in 1975 to estimate annual changes in physicians' operating costs and establish appropriate Medicare physician payment updates.
- The MEI distribution of physician work, practice expense and professional liability insurance (PLI) is used to determine the weights of these relative value pools.

Medicare Economic Index (MEI) - History

	1975-1992	1993	1996	2000	Currently Used – 2006 Data	Updated CMS MEI Weights (Postponed)
Physician Work	60.0%	54.2%	54.5%	52.5%	50.9%	47.5%*
Practice Expense (PE)	40.0%	41.0%	42.4%	43.7%	44.8%	51.1%*
Professional Liability Insurance (PLI)	(incl with PE)	4.8%	3.2%	3.9%	4.3%	1.3%

*AMA Comment: New CMS MEI is flawed because it excludes hospital-based physicians.

AMA Socioeconomic Monitoring System (SMS)

- The SMS, an annual phone survey of 4,000 physicians, was conducted from the early 1980s through 1999.
- SMS surveyed physician practice arrangements, managed care involvement, income and expenses, and hours and weeks of work.
- SMS utilized for MEI – supported the 60% work, 40% PE used through 1992.
- Core 1989 SMS Survey used to establish MEI for the 1993 Resource Based Relative Value Scale (RBRVS).
- SMS Data used to update MEI in 1996 and 2000
- Resource-based PE RVUs in 1999 – SMS 1995-1999 data were utilized.

Physician Practice Information (PPI) Survey 2007/2008

- In 2010, CMS began a four-year transition to employ new practice expense data from the Physician Practice Information (PPI) Survey.
- Survey was administered by **dmr**kynetec via phone, fax, mail, and online.
- Jointly funded by CMS, AMA and national specialty societies.
- 2006 practice expense per hour was reported based on PPI data from 2,795 physicians.

Other PPI, Crosswalk, and Specialty Society Supplemental Surveys

- **dmr**kynetec also administered surveys for non-MD/DO health care professionals.
- CMS cross-walked data for 34 specialties to other like specialites.
- CMS does not utilize claims data from Nurse Practitioners or Physician Assistants in the current methodology because PE/Hour data were not available.
- Supplemental survey data implemented for Medical Oncology, Independent Diagnostic Testing Facilities (IDTFs) and Independent Labs.

AMA House of Delegates (HOD) Resolution

- In June 2019, the AMA HOD referred for decision a request for the reengagement in practice cost data collection

- The AMA Board of Trustees directed AMA staff to conduct physician interviews and a pilot study to determine the feasibility of a new data collection effort.

Physician Practice Interviews 2020 and 2022

- In early 2020, AMA staff interviewed financial experts representing various physician practice types to inform a contract for a larger interview process.
- The AMA retained Medscape to interview and pilot survey 50 physician practices in summer 2020. One key finding was that it was necessary to query the financial experts in the practice directly. Also advised to pause until after COVID impacts to practices.
- In 2022, the AMA interviewed an additional 20 larger physician practices and health systems, met with CMS and obtained budget approval to proceed with a 2023-2024 PPI Survey effort.

PPI Survey Development

- The AMA retained Mathematica and provided significant resources to design and administer a new PPI Survey in 2023-2024.
- The PPI survey was designed based on previous effort, CMS definitions, learnings from the interviews and pilot testing. Specialties were also provided with the opportunity to review and provide comment in late 2022.
- Mathematica pre-tested and piloted the survey prior to launch in summer 2023.

Example of a Table From the PPI

TABLE A. Physicians: ANNUAL Work RVUs, and ANNUAL Compensation, by specialty in [2022/2023]						
Part 1	Average # of physicians at the practice during [2022/2023]				Total ANNUAL COMPENSATION for ALL physicians	
Physician Specialty	1a. part-time *(less than [Y] hours per week)*	1b. full-time *(at least [Y] hours per week)*	2. Percent of time physicians billed in non-facility settings	5. Total ANNUAL work RVUs provided by ALL physicians	6a. Monetary compensation	6b. Benefits
[SPECIALTY]						
[SPECIALTY]						
TOTAL	*Total*	*Total*		*Total*	*Total*	*Total*

PPI Survey Support Letter – 170+ organizations

- More than 170 organizations signed a letter of support to share with all potential survey respondents. All state medical associations; more than 100 national medical specialty societies and other health care professional associations; American Group Medical Association; Medical Group Management Association; and the Association of American Medical Colleges all signed the letter.
- Nearly all these organizations sent out additional communications to support the effort in 2023-2024.

PPI Survey Incentives

- Small practices (i.e., fewer than 10 physicians) were offered $100 to complete survey.
- All survey respondents offered a complimentary one-year online subscription to the AMA's RBRVS DataManager.
- Tested offering $500 to medium sized practices and $1,000 to large practices. Incentives to larger practices were not effective, so was not extended.

PPI Survey Sample and Practice Information

- Practices were defined by Taxpayer Identification Numbers (TINs). Sampling using TINs aligns with available information in the Medicare Data on Provider Practice & Specialty (MD-PPAS). MD-PPAS includes physicians who have billed Medicare.
- Practice information from IQVIA's OneKey data was linked to MD-PPAS to find information on names and contact information of financial experts.
- IQVIA OneKey data used directly to select pediatric medicine sample.
- Sampling and weighting variables will be discussed in later slides.

PPI Survey Administration

- Institutional Review Board approval received.
- E-mails to physician practice sample began in late July 2023.
- E-mails to non-MD/DO practice, IDTFs and independent labs sample began in early 2024.
- Availability and reliability of e-mail addresses within the IQVIA's OneKey data was an issue. AMA and Mathematica conducted numerous lookups to improve information. Nearly 20% of the sample selected did not have accurate financial expert names or contact information. An additional 40+% had names but no email information.
- Mathematica also mailed the surveys to each practice.

Direct Patient Care Hour Surveys

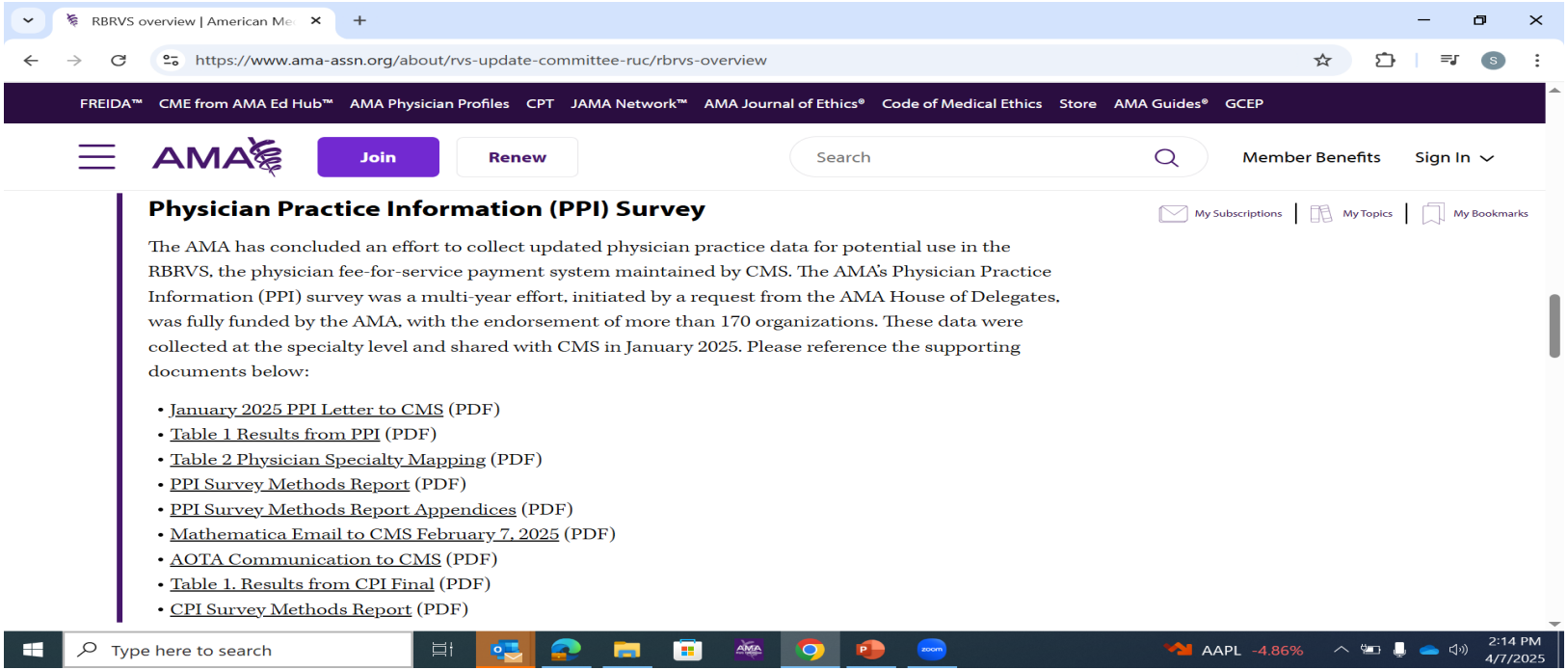
- Mathematica emailed physicians from the sampled practices to collect patient care hours and to inform those physicians that their practice was invited to participate in the PPI Survey effort.
- The AMA and Medscape also directly contacted physicians to collect direct patient care hours and encourage physician engagement to ensure practice surveys were completed.
- Reponses to the hours survey were received from 5,690 physicians.

PPI Survey Concluded September 2024

- The PPI Survey concluded with 380 practices providing usable data for 831 departments. These departments included 18,086 physicians. Some practices were also able to allocate costs to nurse practitioners and physician assistants. The response rate was 6.8%.
- The non-MD/DO survey concluded with 317 practices providing usable data and included 2,548 other health care professionals. The response rate was 9.1%.
- Practice expense and direct patient care hour data for physicians and other health care professionals were submitted to CMS in advance of the February 10, 2025, due date. The IDTF community has not yet submitted survey data to CMS as they are working to determine a direct patient care hours alternative.

PPI Survey Resources on AMA Website

- The PPI Survey Resources are in the Relative Update Committee (RUC) agenda materials, the RUC collaboration site, and publicly on the AMA Website.



Differences between 2007/2008 and 2023/2024 PPI Survey Efforts

- Previous PPI focused on the individual physician; New PPI focused on the practice (TIN).
- Previous PPI sample from the AMA Physician Professional Data; New PPI sample from MD-PPAS (OneKey for pediatric practices).
- Previous PPI was administered via phone, fax, mail, and online; New PPI administered *solely* online.
- Previous PPI point of contact was the physician; New PPI point of contact was the financial expert.

PPI Sampling

- Practices were defined as TINs and selected from the MD-PPAS data (OneKey for pediatric practices).
- TINs were sampled based on practice attributes thought to be correlated with practice expense.
  - Practice size
  - % of allowed charges in a facility setting
  - Whether single (39) or multi-specialty (6)
  - Practice ownership

Combining Specialty-level Data

- Practices were asked to provide expense data separately for each Medicare specialty (65) in their practice.
- Because of small sample size and because some practices combined specialties when reporting, we grouped expense data into 18 categories. Table 2 on the earlier linked website provides the full mapping.
- Combinations were based on similarities across specialties in 2006 expense data, similarities in site-of-service billing, and function.

Calculation of practice expense per hour (PE/HR)

Physician Hours Survey

- Grouped the hours data into 18 specialty categories.
- Defined a physician as full time (hours >= 35) or part time.
- Computed mean hours and mean weeks separately for full and part time physicians in each specialty category.

	Hours per week	Weeks per year	Hours per year
Part time	21	43	930
Full time	52	45	2316
All	44	44	1936

Calculation of PE/HR (continued)

Practice Survey

- Excluded departments that did not report any expense data or had number of physicians inconsistent with other data reported.
- Calculated annual total hours of patient care for each department. Multiplied the numbers of physicians in each department by mean hours and mean weeks, separately for full and part time physicians.
- Divided each expense variable by annual total hours of patient care.
- Trimmed outliers.
- Imputed missing values based on specialty means and, depending on expense category, subcategories within specialty (% of billing in the facility setting or size).

Weighting

- Due to sample size, the weighting methodology was based on only subset of variables (and categories) used in sampling, prioritizing those thought to have the greatest correlation with practice expense.

- Weights accounted for practice specialty; % of billing in the facility setting within each practice; specialties within each of the 18 groupings; and practice size.

Annual Hours, Direct, Indirect, and Total PE/HR: Physicians

Broad specialty	Mean annual hours of direct patient care	Mean direct PE/HR	Mean indirect PE/HR	Mean PE/HR
Cardiology	2265	77.55	132.00	209.55
Dermatology	1636	103.82	146.63	250.46
Gastroenterology	2025	54.31	117.02	171.34
Hematology/Oncology	1763	109.62	132.38	242.00
Hospital Based Medicine	1768	6.61	56.52	63.13
Hospital Based Surgery	2448	32.54	62.39	94.93
Obstetrics/Gynecology	2063	61.57	101.05	162.62
Office Based Medicine	1849	34.60	75.32	109.92
Office Based Proceduralist	2170	63.03	110.95	173.98

Annual Hours, Direct, Indirect, and Total PE/HR: Physicians (continued)

Broad specialty	Mean annual hours of direct patient care	Mean direct PE/HR	Mean indirect PE/HR	Mean PE/HR
Ophthalmology	1812	96.83	200.36	297.19
Orthopaedic Surgery	2397	41.65	113.50	155.15
Otolaryngology	2296	47.91	100.44	148.35
Pathology	2036	19.13	46.79	65.92
Primary Care	1851	48.55	97.14	145.70
Psychiatry	1407	9.25	28.84	38.10
Pulmonary Disease	2028	41.00	92.44	133.43
Radiology	1781	58.79	118.12	176.91
Vascular Surgery	2486	87.96	117.35	205.32
All	1936	42.56	91.04	133.61

Annual Hours, Direct, Indirect, and Total PE/HR: Health Care Professionals

Broad specialty	Mean annual hours of direct patient care	Mean direct PE/HR	Mean indirect PE/HR	Mean PE/HR
Audiology	1498	34.15	123.60	157.75
Chiropractic	1652	40.69	64.44	105.13
Clinical Laboratory	1723	109.45	103.50	212.94
Clinical Psychology/Psychology	1377	14.73	45.39	60.12
Licensed Clinical Social Worker	1385	25.04	23.85	48.89
Nurse Practitioner	1509	38.03	41.94	79.97

Annual Hours, Direct, Indirect, and Total PE/HR: Health Care Professionals (continued)

Broad specialty	Mean annual hours of direct patient care	Mean direct PE/HR	Mean indirect PE/HR	Mean PE/HR
Optometry	1548	125.05	118.69	243.74
Oral Surgery	1524	243.89	338.41	582.29
Physical Therapy	1648	29.48	59.21	88.69
Physician Assistant	1583	32.59	49.59	82.18
Podiatry	1592	43.70	89.95	133.65
Registered Dietitian	1036	21.87	41.55	63.42
Speech Language Pathology	982	9.71	26.93	36.64

Components of Direct and Indirect PE/HR (all physicians)

Clinical	Supplies	Equipment	Total direct
33.02	6.77	2.77	42.56

Administrative	Overhead	Information technology	Other	Total indirect
29.30	24.29	6.55	30.91	91.04

Medicare Economic Index (MEI)

	1975-1992	1993	1996	2000	Currently Used – 2006 Data	Updated CMS MEI Weights (Postponed)	**2024 PPI**
Physician Work	60.0%	54.2%	54.5%	52.5%	50.9%	47.5%*	60.8%
Practice Expense (PE)	40.0%	41.0%	42.4%	43.7%	44.8%	51.1%*	37.0%
Professional Liability Insurance (PLI)	(incl with PE)	4.8%	3.2%	3.9%	4.3%	1.3%	2.3%

*AMA Comment: New CMS MEI is flawed because it excludes hospital-based physicians.

What do Size and Site-of-Service Have to do With it?

- As practice size increases...
  - Direct and indirect PE contribute a *smaller* share of the total.
  - Fixed costs spread across more physicians.
  - Work contributes a *larger* share.
- As the share of billing in the facility setting increases…
  - Direct and indirect PE contribute a *smaller* share of the total.
  - The facility incurs some direct and indirect expenses.
  - Work contributes a *larger* share.

Practice Size Variation in Practice Expense & MEI

Practice size	Total direct	Total indirect	Total PE	Provider work	PLI	MEI Expense
Practice expense per hour						
1 to 10	48.67	93.42	142.09	140.00	6.00	288.09
11 to 100	43.30	98.11	141.41	232.30	4.89	378.61
101+	34.11	76.50	110.61	202.69	8.58	321.87
Missing	76.23	163.43	239.67	234.42	4.75	478.84
All	42.56	91.04	133.61	194.32	6.95	334.87
MEI						
1 to 10	15.8%	31.8%	47.6%	50.1%	2.3%	100%
11 to 100	8.4%	23.7%	32.1%	66.5%	1.4%	100%
101+	9.5%	22.5%	32.1%	65.2%	2.8%	100%
Missing	14.8%	30.6%	45.5%	53.3%	1.2%	100%
All	11.3%	25.7%	37.0%	60.8%	2.3%	100%

Department Billing Variation in Practice Expense & MEI

% of billing in facility	Total direct	Total indirect	Total PE	Provider work	PLI	MEI Expense
			Practice expense per hour			
less than 25%	59.19	108.06	167.25	176.52	7.90	351.66
25% to LT 50%	61.07	116.89	177.96	220.65	9.46	408.08
50% to LT 75%	56.04	99.71	155.75	211.01	5.65	372.40
75% +	29.94	83.04	112.98	195.85	6.71	315.54
Missing	50.52	85.99	136.51	193.45	6.32	336.29
All	42.56	91.04	133.61	194.32	6.95	334.87
			MEI			
less than 25%	15.3%	29.7%	45.0%	52.7%	2.4%	100%
25% to LT 50%	14.7%	27.8%	42.6%	54.8%	2.6%	100%
50% to LT 75%	13.1%	26.4%	39.5%	59.8%	1.7%	100%
75% +	8.4%	24.8%	33.2%	64.5%	2.3%	100%
Missing	13.7%	23.5%	37.2%	60.5%	2.3%	100%
All	11.3%	25.7%	37.0%	60.8%	2.3%	100%

Practice Billing Variation in Practice Expense & MEI

% of billing in facility	Total direct	Total indirect	Total PE	Provider work	PLI	MEI Expense
			Practice expense per hour			
less than 25%	62.57	106.55	169.12	159.08	6.46	334.66
25% to LT 50%	68.17	135.00	203.17	221.20	6.01	430.38
50% to LT 75%	40.01	91.66	131.68	218.01	10.05	359.74
75% +	19.01	56.43	75.44	188.28	6.60	270.32
Missing	70.24	139.30	209.54	199.47	4.58	413.60
All	42.56	91.04	133.61	194.32	6.95	334.87
			MEI			
less than 25%	16.8%	31.4%	48.2%	49.5%	2.4%	100%
25% to LT 50%	13.9%	30.1%	44.1%	54.3%	1.7%	100%
50% to LT 75%	10.7%	24.9%	35.6%	61.9%	2.6%	100%
75% +	6.8%	20.8%	27.6%	69.9%	2.5%	100%
Missing	16.8%	30.7%	47.5%	51.1%	1.4%	100%
All	11.3%	25.7%	37.0%	60.8%	2.3%	100%

Regressions That Control for Specialty Show…

- On average, in practices with 50 or more physicians compared to practices with 10 or fewer physicians:
  - Overhead per hour is $19 lower
  - Direct shares are 11 percentage points lower
  - Indirect shares are 12 percentage points lower
- On average, a 1 percentage point increase in facility billing for a department is associated with a:
  - $0.33 decrease in direct PE/HR
  - $0.48 decrease in indirect PE/HR

Concluding thoughts

- Participation still hard to obtain but for different reasons.
- Physicians are no longer the appropriate point of contact. 44% of physicians were owners in 2022 compared to 61% in 2007.
- Practices (TINs) are a better point of contact but contact information is lacking.
- Even when contact information is accurate, security measures (SPAM filters) affect response.
- Some practices track expenses across TINs or within TINs.
- Some practices don’t track expenses at the detailed specialty level currently used by CMS.
- Attention must be paid to sampling and weighting. While physician characteristics were key in 2007 (e.g., age and gender) practice characteristics (e.g., size and site-of-service) are now more important.

Physicians' powerful ally in patient care