Understanding the impact of Medicare Physician Fee Schedule policy changes for U.S. healthcare providers

Authors: John Kalamaras, MS; Joseph Gentile, MS; William Shyne, BA; and Alyssa Dahl, MPH, CPH

Data Gen®
Insights for Healthcare®

September 2026

Overview

The purpose of this study is to understand how established federal policy factors shape the spending behaviors of U.S. healthcare providers who serve Medicare beneficiaries. In this study, DataGen evaluated the Centers for Medicare and Medicaid Services' (CMS) annual Physician Fee Schedule (PFS) rules and their role in increasing or decreasing Medicare costs of individual providers' services.

DataGen had two specific objectives:

- to understand how provider reimbursement changes are impacted by adjustments to relative value units (RVUs) in the PFS; and
- to understand how the PFS' annual updates to RVUs impact healthcare service utilization, as delivered by defined provider cohorts

Background

CMS maintains the Medicare PFS payment system, which provides physicians with a list of medical procedures and services, and the pre-established maximum payment rates for each procedure. These procedures and services can occur in a variety of care settings and are performed by physicians, physician assistants, nurse practitioners and other types of health professionals. The PFS is dependent on the RVU scaling methodology that dictates the relative value of procedures and the requisite compensation for those services. The payment rates take into account resource costs associated with physician work (e.g., time and intensity), practice expense and malpractice expense. The PFS is updated annually to add and/or remove reimbursable procedures and services, to better reflect CMS' understanding of the cost of delivering care in the upcoming year, and to adjust the regulations that govern care.

The PFS applies a CMS-defined and administered pricing system in which the true marginal cost of providing services is not known, and which incorporates the value of a service as determined through a physician survey conducted by the American Medical Association's (AMA) Specialty Society Relative Value Update Committee (RUC). This system can be flawed and may result in misvalued services, whereas other systems (e.g., reference pricing) have the potential to set fees with a closer association between prices and marginal costs.[1] Recommendations to improve the PFS have ranged from better capture of costs and accountability that are associated with work intensity, to reassessing the value of services and procedures through policies that can influence how health professionals spend their time, as well as the mix of services provided.[2,3]

In their March 2023 report to Congress, the Medicare Payment Advisory Committee (MedPAC) recommended changes to clinicians' RVU payment due to clinicians' growing input costs and the need for additional financial support for clinicians who provide care to low-income beneficiaries.[4] The proposed changes included: 1) updating the 2023 Medicare base payment rate for services by 50% of the projected increase in the Medicare Economic Index, and 2) enacting a non-budget-neutral add-on payment for services provided to low-income Medicare beneficiaries.

Despite many recommendations for improving the PFS, the industry's understanding of their estimated impact is too limited to ascertain their adequacy. Little existing research has assessed the role of PFS rules for assigning costs to Medicare for individual providers' services. An understanding of this relationship will aid both CMS and individual healthcare providers in offering cost effective, high-quality services to their patients, while limiting unnecessary expenditures. This understanding fundamentally aligns with CMS' three-part value-based care aim: to provide better care for individuals, ensure better health for populations and to lower program costs.

Methods

Data Source

DataGen used the 100% Medicare Fee-for-Service (FFS) Carrier file for calendar years (CYs) 2022-2024 for this study. This data set contains claims data submitted by healthcare professionals such as physicians, physician assistants, clinical social workers and nurse practitioners. It also includes claims data for organizational providers such as free-standing ambulatory surgical centers and independent clinical laboratories. The information contained within these files relates to care received by over 20 million Medicare FFS beneficiaries, all of which were included in the study. The 100% beneficiary population was used in this study to remove sampling bias and provide the greatest statistical power and precision for small effect sizes.

Additional sources of information used in the study include:

- Regulatory update tables from the PFS final rules for CY 2022, 2023 and 2024. These files allowed DataGen to model PFS final rule changes and their resulting impacts on the cost of services.
- PFS RVU files to capture the associated RVUs and policy indicators to reflect payment adjustments.

Hypotheses

To meet the two identified objectives as part of this research study, DataGen conceptualized four specific testable hypotheses.

- **Hypothesis 1**: RVU adjustments will be associated with increased total reimbursement for individual providers.
- **Hypothesis 2**: RVU adjustments will be more favorable to primary care providers than specialty care providers.
- **Hypothesis 3**: Healthcare services with large year-over-year increases in RVU adjustment will be performed more frequently on a per-provider basis in subsequent years.
- **Hypothesis 4**: There is a threshold of change in RVU adjustment that coincides with increased utilization for individual providers.

For each hypothesis, DataGen initially assessed impacts for CY 2022 vs. CY 2023 PFS RVUs and then subsequently assessed impacts for CY 2023 vs. CY 2024 PFS RVUs with more recent claims data information.

Definitions of Utilization Frequency

To assess year-over-year utilization changes among healthcare professionals, DataGen considered service utilization in three different ways:

- **Extensive Margin**: Represents the proportion of beneficiaries receiving the service.

$$\textbf{Extensive Margin}: = \frac{\textit{Number of Beneficiaries Receiving HCPCS Code}}{\textit{Total NPI Beneficiary Panel}}$$

- **Intensive Margin**: Represents the frequency of the service among beneficiaries who already receive it.

$$\textbf{Intensive Margin}: = \frac{\textit{Number of Units}}{\textit{Number of Beneficiaries Receiving HCPCS Code}}$$

- **Overall Intensity**: Represents the frequency of the service among all beneficiaries overall.

$$\textbf{Intensive Margin}: = \frac{\textit{Number of Units}}{\textit{Total NPI Beneficiary Panel}}$$

Statistical Analysis

Hypothesis 1: RVU adjustments will be associated with increased total reimbursement for individual providers.

To determine if RVU adjustments in the CY 2023 PFS were associated with increased total reimbursement, DataGen calculated PFS payment rates at the individual provider level for CY 2022 professional claims using RVU values from the CY 2022 and CY 2023 PFS final rules. Individual providers were represented by their National Provider Identifier (NPI). Average differences between RVU scores were calculated for CY 2022 and CY 2023. A Z-test on average differences was conducted to assess if RVU adjustments were associated with increased total reimbursement for individual providers. These steps were separately repeated to determine CY 2024 PFS impacts by rolling the RVU values and claims data used forward by one year.

Hypothesis 2: RVU adjustments will be more favorable to primary care providers than specialty care providers.

To determine if RVU adjustments in the CY 2023 PFS were more favorable to primary care providers than specialty care providers, DataGen calculated PFS payment rates at the individual provider level for CY 2022 professional claims using RVU values from the CY 2022 and CY 2023 PFS final rules. Individual providers at the NPI level were mapped to a provider type category (primary vs. specialty) using their reported provider specialty code on the claim. Primary care providers had a provider specialty code for general practice, family medicine, internal medicine, geriatric medicine, pediatric medicine, nurse practitioner, certified clinical nurse specialist or physician assistant. All other providers were assigned to the specialist group. Average differences between RVU scores were calculated for CY 2022 and CY 2023 within each provider type category. Z-tests on average differences were conducted separately for each provider type category to assess if RVU adjustments were more favorable (in terms of increased total reimbursement) for primary care providers vs. specialty care providers. These steps were separately repeated to determine CY 2024 PFS impacts by rolling the RVU values and claims data used forward by one year.

Hypothesis 3: Healthcare services with large year-over-year increases in RVU adjustment will be performed more frequently on a per provider basis in subsequent years.

To determine if healthcare services with large increases in RVU adjustment from CY 2022 to CY 2023 caused providers to perform these services on a more frequent basis, DataGen used CY 2022 and CY 2023 professional claims data to create payment rates reflective of each CY's RVU values and Geographic Practice Cost Index (GPCI) by individual NPI, Medicare Administrative Contractor (MAC) and Healthcare Common Procedure Coding System (HCPCS) code. GPCI was included in rate calculations to adjust reimbursement rates on regional cost differences. Stratification at the MAC level was conducted to control for GPCI rates. Stratification at the HCPCS code level allowed for analysis of individual procedures, supplies, products and services. Linear regression models were created to test the influence of RVU/GPCI score changes between the CY 2022 and CY 2023 PFS final rules on actual NPI/HCPCS code utilization. The effect was tested in three regression models, each testing a different definition of utilization as the outcome: extensive margin, intensive margin and overall intensity. This process was subsequently repeated to evaluate the influence of CY 2023 to CY 2024 payment increases on utilization, rolling all years of payment rules and claims data forward.

As a secondary analysis related to this hypothesis, separate regressions were run by provider type (primary vs. specialty) and Restructured Berenson-Eggers Type of Service (BETOS) System (RBCS) groups as a categorization of HCPCS codes to see if there were any differences among the types of services rendered. Example service groups included evaluation and management visits, imaging, treatments, tests, procedures, anesthesia and "other." Models were not run for durable medical equipment related categories.

Hypothesis 4: There is a threshold of change in RVU adjustment that coincides with increased utilization for individual providers.

To determine if there is a certain threshold of change in RVU adjustment that coincides with increased utilization for individual providers, DataGen started with the regression models developed as part of Hypothesis 3. Two calculations were derived from the regressions:

- the average RVU/GPCI score change (representing the "threshold") that triggers an increase in utilization, relative to the three models; and
- the percent of NPI/HCPCS combinations that exceeded the identified thresholds, relative to each of the three models.

This process was performed for the CY 2022 to CY 2023 comparison as well as the CY 2023 to CY 2024 comparison.

Results

Hypothesis 1: RVU adjustments will be associated with increased total reimbursement for individual providers.

From CY 2022 to CY 2023, the average difference in RVU score was 11.32, showing that RVU adjustments increase provider reimbursement in subsequent years. Results were consistent from CY 2023 to CY 2024, observing an average difference in RVU score of 25.83. Further results can be found in Table 1.

Table 1: **Overall impact of RVU adjustments on total reimbursement for individual providers**

PFS Years	Mean	Standard Deviation	Sample Size	Z	P-value
CY 2022 vs. CY 2023	11.32	1,914.93	1,344,727	6.86	0
CY 2023 vs. CY 2024	25.83	248.82	1,461,838	6.86	0

Hypothesis 2: RVU adjustments will be more favorable to primary care providers than specialty care providers.

From CY 2022 to CY 2023, the average difference in RVU score was 20.58 for specialists and -2.90 for primary care providers, showing that RVU adjustments were more favorable to specialists in the CY 2023 PFS final rule. While specialists had a similar difference in RVU score from CY 2023 to CY 2024 (24.19), primary care providers had an average difference in RVU score of 28.30 and thus a more favorable increase in reimbursement in the CY 2024 PFS final rule. Further result details can be found in Table 2.

Table 2: **Overall impact of RVU adjustments on total reimbursement for individual providers by provider type**

PFS Years	Provider Type	Mean	Standard Deviation	Sample Size	Z	Two-sided P-value
CY 2022 vs. CY 2023	Specialty	20.58	2,443.08	814,071	7.60	0
	Primary	-2.90	363.28	530,655	-5.81	0
CY 2023 vs. CY 2024	Specialty	24.19	310.79	877,812	7.60	0
	Primary	28.30	98.86	583,995	-5.81	0

Hypothesis 3: Healthcare services with large year-over-year increases in RVU adjustment will be performed more frequently on a per provider basis in subsequent years.

From CY 2022 to CY 2023, significance was found in each regression model tested, indicating an increase in provider reimbursement subsequently increases year-over-year provider utilization for each way utilization was defined. Consistent results were observed for CY 2023 to CY 2024. Detailed regression results can be found in Table 3.

Table 3: **Regression results testing influence of year-over-year increases in RVU adjustment on provider utilization**

PFS Years	Dependent Variable	Coefficient	Intercept	R^2	P-value
CY 2022 vs. CY 2023	Extensive Margin	0.00120	0.00188	0.0080	0
	Intensive Margin	0.04405	0.00205	0.0224	0
	Overall Intensity	0.00196	0.01104	0.0003	0
CY 2023 vs. CY 2024	Extensive Margin	0.00129	0.00544	0.0081	0
	Intensive Margin	0.04410	0.03421	0.0183	0
	Overall Intensity	0.00237	0.02146	0.0003	0

In the secondary analysis on provider type (primary vs. specialty) and RBCS group, all regressions were significant for each grouping, meaning increased reimbursement increased year-over year service utilization for all categories of service evaluated.

Hypothesis 4: There is a threshold of change in RVU adjustment that coincides with increased utilization for individual providers.

Using the regression model results that were created to evaluate the influence of year-over-year RVU adjustment changes on provider service utilization, calculations were performed to further understand what degree of change is needed to increase service utilization and how many individual services are impacted by these trends.

The calculated thresholds of change in Table 4 show the average RVU/GPCI score increase that must exist to increase provider utilization in a service, relative to each of the three models tested. Additionally, the percent of NPI/HCPCS (individual provider and service) combinations that exceeded the identified threshold, relative to each of the models, were also calculated, as displayed in Table 4. These results indicate that in general, close to any positive change in RVU/GPCI score will lead to an increase in service utilization. CY 2022 to CY 2023 results were confirmed with CY 2023 to CY 2024 results.

Table 4: **Degree of RVU adjustment change that coincides with increased service utilization by providers**

PFS Years	Indicator	Extensive Margin	Intensive Margin	Overall Intensity
CY 2022 vs. CY 2023	Threshold of Change	-1.570	-0.046	-5.634
	Percent of HCPCS Exceeding Threshold	82.26%	68.85%	93.70%
CY 2023 vs. CY 2024	Threshold of Change	-4.219	-0.776	-9.063
	Percent of HCPCS Exceeding Threshold	91.76%	79.12%	95.84%

Discussion

This research study used a large, complete (100%) population to better understand the influence of annual updates to payment policy factors on healthcare service utilization within the Medicare PFS. In the years studied, CY 2022 to CY 2024, RVU adjustments were found to increase provider reimbursement in subsequent years. Although the results were statistically significant, the effect size (representing increased provider reimbursement) was very small between years.

It is important to note that an increase in RVU adjustment does not automatically mean that providers will experience increased reimbursement. Other factors can counteract the impact on final payment, such as federal budget neutrality rules as established in the *Omnibus Budget Reconciliation Act of 1989*.[5] For example, from 2005 to 2021 researchers observed a 2.3%

reduction in reimbursement per beneficiary for physicians given the combined effect of RVU increases and inflation and decreases to the PFS conversion factor, in contrast to increases for non-physician practitioners.[6]

Due to these budget-neutrality requirements, when RVU adjustments result in an increase for certain services, other services will experience a decrease in RVU adjustment. In the first two years compared in this study, CY 2022 to CY 2023, specialists were observed to have more favorable adjustments, in aggregate, across the services performed, in comparison to primary care providers who had a slightly negative RVU adjustment. Although statistically significant, the effect size (representing increased provider reimbursement) was very small between years. In the second two years compared in this study, CY 2023 to CY 2024, the results reversed, with primary care providers observed to have more favorable annual RVU adjustments for the services performed, although specialist RVU adjustment was still positive. In recent years, there has been increased scrutiny on why primary care providers have been underpaid in comparison to specialists, with reforms being proposed related to the composition of the RUC as well as the underlying data and methods used to set rates.[7]

Although positive changes in RVU/GPCI scores were found to increase utilization, this analysis was performed at the highest level, in consideration of all provider types and services. Additional analysis that seeks to evaluate trends within individual provider specialty areas or that looks for associations related to more granular groupings of similar services could yield more informative and useful results to better understand the effects on the practice of healthcare.

Conclusion

Medicare payment reform continues to be an important healthcare policy topic, with the adequacy of provider reimbursement under ongoing scrutiny. Recently, in MedPAC's March 2026 Report to Congress on Medicare payment policy, permanent increases to physician payment above currently legislated rates were recommended to offset the higher costs clinicians are facing.[8] Despite this call to action, CMS proposed a payment rate decrease in the CY 2027 PFS proposed rule, potentially decreasing reimbursement by more than 1% for these healthcare professionals, resulting from conversion factor adjustments and removal of temporary 2026 rate increases from the *One Big Beautiful Bill Act*.[9,10] Public comments and further CMS rulemaking will inform how the PFS continues to evolve.

References

1 Dowd, B. E., Laugesen, M. J. (2020). Fee-for-service payment is not the (main) problem. *Health Services Research*, 55(4), 491-495. doi.org/10.1111/1475-6773.13316

2 Kumetz, E. A., Goodson, J. D. (2013). The Undervaluation of Evaluation and Management Professional Services. *Chest Journal*, 144(3), 740-745. doi.org/10.1378/chest.13-0381

3 Berenson, R. A., Ginsburg, P. B. (2019). Improving The Medicare Physician Fee Schedule: Make It Part Of Value-Based Payment. *Health Affairs*, 38(2), 246-252. doi.org/10.1377/hlthaff.2018.05411

4 Medicare Payment Advisory Commission. (2023). March 2023 Report to the Congress: Medicare Payment Policy. Washington, DC: MedPAC. medpac.gov/document/march-2023-report-to-the-congress-medicare-payment-policy/

5 101st Congress (1989-1990). (1989). H.R.3299 – Omnibus Budget Reconciliation Act of 1989. congress.gov/bill/101st-congress/house-bill/3299

6 Christensen, E. W., Nicola, G. N., Rula, E. Y., Nicola, L. P., and Hirsch, J. A. (2024). Medicare Volume Growth and Shift in Payments From Physicians to Non-Physician Practitioners Under Statutory Budget Neutrality. INQUIRY: *The Journal of Health Care Organization, Provision and Financing*, 61, 1-9. doi.org/10.1177/00469580241249076

7 The Commonwealth Fund. (2025). Issue Brief. Improving Payments for Primary Care Physicians. commonwealthfund.org/publications/issue-briefs/2025/sep/improving-payments-primary-care-physicians

8 Medicare Payment Advisory Commission. (2026). March 2026 Report to the Congress: Medicare Payment Policy. Washington, DC: MedPAC. medpac.gov/wp-content/uploads/2026/03/Mar26_MedPAC_Report_To_Congress_SEC.pdf

9 Centers for Medicare and Medicaid Services. (2026). Calendar Year (CY) 2027 Medicare Physician Fee Schedule Proposed Rule. federalregister.gov/documents/2026/07/16/2026-14327/medicare-and-medicaid-programs-cy-2027-payment-policies-under-the-physician-fee-schedule-and-other

10 United States 119th Congress. (2025). H.R. 1. Public Law. No: 119-21. An act to provide for reconciliation pursuant to title II of H. Con. Res. 14. congress.gov/bill/119th-congress/house-bill/1

DataGen®

Insights for Healthcare®

About DataGen®, Inc.

DataGen® offers analytical insights to healthcare organizations, focusing on federal payment policy changes, Medicare and commercial insurers' value-based programs, community needs assessments for hospitals and health departments, healthcare market dynamics and surveying of a hospital's culture of safety. DataGen's product portfolio includes financial impact reports that address annual and ad hoc changes to Medicare's fee-for-service programs, performance measures within Medicare's innovation and value-based programs and custom analytics to evaluate financial and quality outcomes within any payer scenario. In addition to DataGen's high-touch customer service, DataGen's customers rely on its analytical expertise as they strive to improve quality, outcomes and financial performance.

datagen.info