MILLIMAN TRANSPARENT

Benchmarking price transparency data

Interpreting results using CMS's Medicare fee schedules vs. Milliman GlobalRVUs

Will Fox, FSA, MAAA
Dave McManus, ASA, MAAA

Milliman Transparent applies both Centers for Medicare and Medicaid Services (CMS) Medicare and Milliman GlobalRVUs (GRVU Medicare) to the transparency data as unit price benchmarks. While they are mostly aligned, these two benchmarks will occasionally yield significantly different results. This paper is intended to help Transparent users understand the differences between these two benchmarks and why GRVU Medicare better accounts for the case mix and severity of a commercial population.

We all know that the CMS Medicare fee schedules are created for an age 65+ and disabled population, and yet commercial contracts commonly reference Medicare without addressing or understanding those services where the Medicare fee schedule is based on limited data. For example, take a Medicare Severity diagnosis-related group (MS-DRG) that frequently occurs in a Medicare population, like uncomplicated pneumonia (MS-DRG 195). For the fiscal year (FY) 2023 fee schedule, there were 23,578 admissions used to calibrate the 0.6418 relative weight, so the relative resource estimate is backed by a credible volume of experience. However, MS-DRG 793 had one discharge and, because of the low volume for newborns, CMS relies on broad update factors and is not relying on recent, robust data.

FIGURE 1: NUMBER OF DISCHARGES IMPACTS CREDIBILITY OF DRG RELATIVE WEIGHT

MSDRG	DESCRIPTION	MEDICARE DISCHARGES	DRG WEIGHT	MEDICARE ALLOWED
195	Simple Pneumonia And Pleurisy Without Cc/Mcc	23,578	0.6418	$4,402
793	Full Term Neonate With Major Problems	1	4.2240	$28,975

When a payer and provider agree to a fee schedule, one of the main goals is that the fee schedule amount for each service reflects the relative resources required to deliver the care. The resource-based relative value scale (RBRVS) physician fee schedule is granular enough that it works well for all populations; however, the Medicare Inpatient Prospective Payment System (IPPS) and Outpatient Prospective Payment System (OPPS) have significant limitations when using them for commercial or Medicaid populations. CMS uses only Medicare data to create the relative weights while Milliman uses Milliman research data, TRICARE, and state Medicaid fee schedules to refine and improve the relative weights for Medicare low-volume MS-DRGs.

The CMS DRG relative weights cannot be easily adjusted for different length of stay assumptions. However, for some DRGs the average length of stay can be very different for commercial and Medicare patients. GlobalRVU Medicare splits the relative weight for each MS-DRG into a first-day RVU and additional day RVUs such that, using the Medicare length of stay, the payment is equivalent. This split allows the fee schedule to explicitly adjust for length of stay differences for a commercial or Medicaid population. GRVU Medicare is developed by multiplying the GRVUs times the CMS RBRVS conversion factor ($33.8872 for 2023). Using the pneumonia MS-DRG, Figure 2 illustrates that, generally for high-volume MS-DRGs, the Milliman GRVU Medicare allowed is equal to the CMS Medicare allowed when assuming the Medicare length of stay.

FIGURE 2: CALCULATING MEDICARE ALLOWED USING GRVUS AND MEDICARE ARITHMETIC LENGTH OF STAY (LOS)

		A	*B*	*C*	*D = B x C*
MSDRG	**Description**	**Medicare Discharges**	**Medicare Base Rate**	**DRG Weight**	**Medicare Allowed**
195	Simple Pneumonia And Pleurisy Without Cc/Mcc	23,578	$6,859.53	0.6418	$4,402

		E	*F*	*G*	*H = E + F x (G - 1)*	*I*	*J = H x I*
MSDRG	**Description**	**First Day RVUs**	**Addl Day RVUs**	**Arithmetic LOS**	**RVUs per Case**	**CMS Conversion Factor (CF)**	**Medicare Allowed**
195	Simple Pneumonia And Pleurisy Without Cc/Mcc	67.70	34.56	2.80	129.91	$33.8872	$4,402

The first-day versus additional day RVUs are derived using Milliman research data, normalized for chargemaster differences. Each MS-DRG has a different relationship between the first-day and additional day RVUs because every MS-DRG has a unique set of resources required for the base admission and unique resources for additional days of care. First-day RVUs are higher than additional day RVUs, especially for services such as surgeries that use significant resources upon admission.

Figure 3 shows equality between CMS Medicare and GRVU Medicare for five MS-DRGs with fully credible volume. Figure 3 also illustrates the resulting difference for five MS-DRGs with low volume where the GRVU Medicare fee schedule reflects refined and improved Medicare-allowed values that are more appropriate for use in analyses for all payer populations. The far-right column shows the CMS Medicare and GRVU Medicare differences for these low-volume MS-DRGs, assuming the Medicare length of stay. As you can see, the GRVU Medicare values are sometimes higher and sometimes lower in comparison to CMS.

FIGURE 3: 2023 COMPARISON OF TRADITIONAL VERSUS MILLIMAN GRVU ALLOWED CALCULATION FOR "HIGH" AND "LOW" VOLUME SERVICES

	Medicare Base Rate (A)	Using Medicare Base Rate and Weights			Using Medicare LOS w GRVUs						
	$6,859.53	*B*	*C*	*D = A x C*	*E*	*F*	*G*	*H = E + F x (G - 1)*	*I*	*J = H x I*	*K = (J / D) - 1*
MSDRG	**Description**	**Medicare Discharges**	**DRG Weight**	**Allowed**	**First Day RVUs**	**Addl Day RVUs**	**Medicare Arithmetic LOS**	**RVUs per Case**	**RBRVS CF**	**Allowed**	**GRVUs / Traditional**
Services with a "high" volume of Medicare discharges											
101	Seizures w/o Mcc	41,078	0.9015	$6,184	84.65	40.77	3.40	182.48	33.89	$6,184	0.0%
235	Coronary Bypass w/o Cardiac Cath w Mcc	11,858	5.9900	$41,089	586.97	72.74	9.60	1212.51	33.89	$41,089	0.0%
482	Hip & Femur Procs Exc. Major Joint w/o Cc/Mcc	21,384	1.6461	$11,291	225.77	41.32	3.60	333.21	33.89	$11,291	0.0%
603	Cellulitis w/o Mcc	99,490	0.8818	$6,049	69.50	37.58	3.90	178.50	33.89	$6,049	0.0%
690	Kidney & UTIs w/o Mcc	128,722	0.7956	$5,457	78.31	33.09	3.50	161.05	33.89	$5,457	0.0%
Services with a "low" volume of Medicare discharges											
295	Deep Vein Thrombophlebitis w/o Cc/Mcc	27	0.8857	$6,075	71.33	37.68	2.50	127.85	33.89	$4,333	-28.7%
507	Major Shoulder Or Elbow Joint Procs w Cc/Mcc	449	1.8548	$12,723	225.86	40.34	6.00	427.55	33.89	$14,488	13.9%
599	Malignant Breast Disorders w/o Cc/Mcc	59	0.7476	$5,128	78.87	32.71	2.40	124.66	33.89	$4,224	-17.6%
769	Postpartum & Post Abortion Diags w O.R. Procs	112	1.6613	$11,396	145.26	70.21	4.30	376.94	33.89	$12,773	12.1%
934	Full Thickness Burn w/o Skin Graft / Inhalation Injury	498	1.8760	$12,868	100.32	59.88	6.80	447.62	33.89	$15,169	17.9%

Finally, the Medicare Arithmetic length of stay (LOS) can be inconsistent with a length of stay for a commercial population such that, when we use the actual length of stay, we get another improvement in the estimated relative resources for a commercial population. Figure 4 illustrates the impact of changing length of stay for the five credible MS-DRGs above. For most MS-DRGs, a commercial population's length of stay is lower, therefore the Milliman GRVU Medicare is lower and the percent of GRVU Medicare is higher.

FIGURE 4: COMPARISON OF MILLIMAN GRVU ALLOWED CALCULATION USING MEDICARE VERSUS COMMERCIAL ARITHMETIC LENGTH OF STAY (LOS)

					Using Medicare LOS w GRVUs			Using Commercial LOS w GRVUs			
		A	*B*	*C*	*D*	*E = A + B x (D - 1)*	*F = C x E*	*G*	*H = A + B x (G - 1)*	*I = C x H*	*J = (I / F) - 1*
MSDRG	**Description**	**First Day RVUs**	**Addl Day RVUs**	**RBRVS CF**	**Medicare Arithmetic LOS**	**Medicare RVUs per Case**	**Allowed**	**Commercial Arithmetic LOS**	**Commercial RVUs per Case**	**Allowed**	**GRVUs (COM) / GRVUs (MCR)**
101	Seizures w/o Mcc	84.65	40.77	33.89	3.40	182.48	$6,184	2.84	159.48	$5,404	-12.6%
235	Coronary Bypass w/o Cardiac Cath w Mcc	586.97	72.74	33.89	9.60	1212.51	$41,089	8.57	1137.92	$38,561	-6.2%
482	Hip & Femur Procs Exc. Major Joint w/o Cc/Mcc	225.77	41.32	33.89	3.60	333.21	$11,291	2.85	302.01	$10,234	-9.4%
603	Cellulitis w/o Mcc	69.50	37.58	33.89	3.90	178.50	$6,049	3.32	156.51	$5,304	-12.3%
690	Kidney & UTIs w/o Mcc	78.31	33.09	33.89	3.50	161.05	$5,457	3.02	145.26	$4,923	-9.8%

Milliman GRVUs are also available for TRICARE and All Patients Refined (APR)-DRGs, which allow the user to compare fee schedules using different DRG systems.

The Milliman GRVU software is run using claims data so a DRG can always be assigned to each discharge. However, in the Transparency data, some contracts have per diem rates by revenue code. In order to estimate a Medicare equivalent rate, we use our research database with claims from over 80 million lives to calculate the average RVUs per day for discharges with a single room and board revenue code. Using this process, the GRVUs create an estimated Medicare-equivalent rate for each room and board revenue code even though CMS does not publish Medicare rates for revenue codes.

Milliman Transparent shows both the CMS Medicare and GRVU Medicare benchmark values. These values closely align for some inpatient DRGs, but the two types of Medicare rates are different due primarily to low-volume DRGs and differences in length of stay between Medicare and commercial patients. We believe the Milliman GRVU Medicare estimates better reflect commercial resource use and GRVUs allow us to compare a broader set of codes across contracts of various structures. Figure 5 shows an actual set of maternity DRG rates with very different percent of Medicare values under the CMS Medicare benchmark (114%) and GRVU Medicare (203%) benchmark. The GRVU Medicare % benchmark more appropriately accounts for the case mix and severity of these maternity patients as the CMS maternity relative weights are overstated when compared to TRICARE and state Medicaid fee schedules. In addition, if the contract uses DRG per diems or 017X revenue codes for newborns, then there are no CMS relative weights, whereas GRVUs will produce consistent results.

FIGURE 5: COMPARISON OF CMS MEDICARE AND MILLIMAN GRVU RELATIVITIES APPLIED TO DETAIL-LEVEL PRICE TRANSPARENCY DATA)

PROVIDER NAME	**BEAUMONT HOSPITAL, ROYAL OAK**
NETWORK NAME	**UHC CHOICE PLUS**
CBSA NAME	**DETROIT-WARREN-DEARBORN, MI METRO AREA**

			A	*B*	*C*	*D*	*E = A / C*	*F = A / D*
					MEDICARE ALLOWED		PERCENT MEDICARE	
MSDRG	DESCRIPTION	RATE METHODOLOGY	AMOUNT	UTILIZATION	GRVU	CMS	GRVU	CMS
768	Vaginal Delivery With O.R. Procedures Except Sterilization And/Or D&C	Per Case	$9,396	2,637	$3,840	$8,733	245%	108%
769	Postpartum And Post Abortion Diagnoses With O.R. Procedures	Per Case	$11,910	336	$10,347	$10,753	115%	111%
770	Abortion With D&C, Aspiration Curettage Or Hysterotomy	Per Case	$6,161	137	$5,727	$5,604	108%	110%
776	Postpartum And Post Abortion Diagnoses Without O.R. Procedures	Per Case	$5,529	1,656	$3,258	$4,512	170%	123%
779	Abortion Without D&C	Per Case	$7,631	157	$3,119	$6,593	245%	116%
783	Cesarean Section With Sterilization With Mcc	Per Case	$13,668	392	$8,963	$13,800	152%	99%
784	Cesarean Section With Sterilization With Cc	Per Case	$7,900	1,071	$6,698	$8,068	118%	98%
785	Cesarean Section With Sterilization Without Cc/Mcc	Per Case	$6,683	1,384	$5,316	$7,214	126%	93%
786	Cesarean Section Without Sterilization With Mcc	Per Case	$13,496	3,270	$8,003	$11,764	169%	115%
787	Cesarean Section Without Sterilization With Cc	Per Case	$8,108	7,527	$6,290	$8,205	129%	99%
788	Cesarean Section Without Sterilization Without Cc/Mcc	Per Case	$6,595	10,268	$5,407	$6,957	122%	95%
789	Neonates, Died Or Transferred To Another Acute Care Facility	Per Case	$14,035	924	$9,570	$11,818	147%	119%
790	Extreme Immaturity Or Respiratory Distress Syndrome, Neonate	Per Case	$46,285	2,232	$49,046	$38,973	94%	119%
791	Prematurity With Major Problems	Per Case	$31,610	1,944	$17,473	$26,616	181%	119%
792	Prematurity Without Major Problems	Per Case	$19,073	2,463	$4,626	$16,060	412%	119%
793	Full Term Neonate With Major Problems	Per Case	$32,471	4,744	$5,944	$27,341	546%	119%
794	Neonate With Other Significant Problems	Per Case	$11,493	16,608	$1,560	$9,677	737%	119%
795	Normal Newborn	Per Day	$1,556	46,483	$488	$423	319%	368%
796	Vaginal Delivery With Sterilization And/Or D&C With Mcc	Per Case	$10,942	60	$6,879	$9,809	159%	112%

PROVIDER NAME	BEAUMONT HOSPITAL, ROYAL OAK
NETWORK NAME	UHC CHOICE PLUS
CBSA NAME	DETROIT-WARREN-DEARBORN, MI METRO AREA

			A	B	C	D	E = A / C	F = A / D
					MEDICARE ALLOWED		PERCENT MEDICARE	
MSDRG	DESCRIPTION	RATE METHODOLOGY	AMOUNT	UTILIZATION	GRVU	CMS	GRVU	CMS
797	Vaginal Delivery With Sterilization And/Or D&C With Cc	Per Case	$7,682	163	$5,656	$7,316	136%	105%
798	Vaginal Delivery With Sterilization And/Or D&C Without Cc/Mcc	Per Case	$6,442	237	$4,517	$7,316	143%	88%
805	Vaginal Delivery Without Sterilization Or D&C With Mcc	Per Case	$7,777	3,926	$4,111	$7,819	189%	99%
806	Vaginal Delivery Without Sterilization Or D&C With Cc	Per Case	$5,760	9,170	$3,343	$5,827	172%	99%
807	Vaginal Delivery Without Sterilization Or D&C Without Cc/Mcc	Per Case	$5,047	29,363	$2,958	$5,397	171%	94%
817	Other Antepartum Diagnoses With O.R. Procedures With Mcc	Per Case	$21,729	145	$10,763	$20,258	202%	107%
818	Other Antepartum Diagnoses With O.R. Procedures With Cc	Per Case	$11,040	215	$9,503	$10,292	116%	107%
819	Other Antepartum Diagnoses With O.R. Procedures Without Cc/Mcc	Per Case	$6,998	209	$6,502	$5,751	108%	122%
831	Other Antepartum Diagnoses Without O.R. Procedures With Mcc	Per Case	$8,295	628	$5,843	$7,734	142%	107%
832	Other Antepartum Diagnoses Without O.R. Procedures With Cc	Per Case	$5,691	1,172	$3,588	$4,534	159%	126%
833	Other Antepartum Diagnoses Without O.R. Procedures Without Cc/Mcc	Per Case	$3,948	1,510	$2,358	$3,262	167%	121%
Total				**151,031**			**203%**	**114%**

Milliman Transparent provides CMS Medicare benchmarks in addition to GRVU Medicare benchmarks because many commercial contracts are based on CMS Medicare fees and CMS Medicare provides a good comparison point.

Outpatient

The CMS OPPS fee schedule can be used directly for commercial unit price analyses and is used as a basis for many commercial contracts. However, if the goal is to best estimate the resources required to deliver each service, then GRVUs provide improvements over CMS Medicare for a commercial population. Some of these improvements are further outlined below.

1. IMAGING

In general, CMS Medicare OPPS relies on other existing fee schedules. For example, the lab fee schedule is used for lab services. Additionally, CMS uses RBRVS for physical therapy and various other services. While CMS does not use the RBRVS technical component for imaging services, in our opinion RBRVS provides a better estimate of the resources to deliver imaging services and we use those in the GRVUs. This also allows for simple and direct comparisons versus freestanding imaging centers. Figure 6 shows examples of the GRVU allowed amount using the RBRVS technical component at the Healthcare Common Procedure Coding System (HCPCS) level for freestanding imaging services in Ambulatory Payment Classification (APC) 5612.

FIGURE 6: TOTAL UTILIZATION AND COMPARISON OF ALLOWED FOR APC 5612 (LEVEL 2 THERAPEUTIC RADIATION TREATMENT PREP)

APC	HCPCS	DESCRIPTION	UTILIZATION	CMS OPPS ALLOWED	RBRVS TC ALLOWED
5612	77285	Set radiation therapy field	435	$359	$390
5612	77290	Set radiation therapy field	100,998	$359	$376
5612	77306	Telethx isodose plan simple	665	$359	$75
5612	77307	Telethx isodose plan cplx	18,971	$359	$136
5612	77316	Brachytx isodose plan simple	2,941	$359	$173
5612	77317	Brachytx isodose intermed	1,118	$359	$228
5612	77318	Brachytx isodose complex	2,228	$359	$309
5612	77321	Special teletx port plan	8,148	$359	$44
5612	77334	Radiation treatment aid(s)	247,806	$359	$66
5612	77338	Design mlc device for imrt	106,725	$359	$243
5612	**-**	**Total**	**490,035**	**$359**	**$173**

2. AMBULATORY SURGICAL CENTERS (ASCS)

Medicare payment for ASCs is much lower than hospitals for the same surgery. Because GRVUs use the same set of RVUs for hospital outpatient surgery and ASCs, this gap can be easily observed when directly comparing the two.

3. AMBULATORY PAYMENT CLASSIFICATIONS (APC) AVERAGING

All Medicare APCs are composed of groups of HCPCS, but the number of HCPCS within an APC can vary greatly. In 2023, while some APCs contained only one HCPCS, the largest APC contained 405 HCPCS. Generally, many APCs contain about 20 to 30 HCPCS. While an APC often contains many codes, Medicare APC relative weights assign an average estimate of relative resources for HCPCS within the APC across the entire group. This is problematic for a commercial or Medicaid population because the service mix for that set of HCPCS almost certainly differs from the Medicare population used to develop the average. Milliman creates HCPCS-specific RVUs that balance to Medicare relative weights using a Medicare distribution of services while providing a better case mix adjustment for non-Medicare service distributions. See Figure 7 for an example.

FIGURE 7: COMPARISON OF 2023 ALLOWED: CMS OPPS VERSUS MILLIMAN GRVU FOR APC 5116 (LEVEL 6 MUSCULOSKELETAL PROCEDURES)

APC	HCPCS	DESCRIPTION	UTILIZATION	CMS OPPS ALLOWED	GEOMETRIC MEAN	MILLIMAN GRVU ALLOWED	MILLIMAN GRVU ALLOWED (W/O ANCILLARY ADJ)
5116	0775T	Arthrd si jt prq iartic impl	0	$21,898	$0	$21,898	$21,310
5116	20696	Comp multiplane ext fixation	19	$21,898	$36,662	$22,940	$22,325
5116	21243	Reconstruction of jaw joint	61	$21,898	$23,733	$22,940	$22,325
5116	22612	Arthrd pst tq 1ntrspc lumbar	6,166	$21,898	$20,591	$19,607	$19,081
5116	22630	Arthrd pst tq 1ntrspc lum	2,076	$21,898	$26,843	$25,559	$24,874
5116	22633	Arthrd cmbn 1ntrspc lumbar	5,153	$21,898	$27,978	$26,640	$25,926
5116	22856	Tot disc arthrp 1ntrspc crv	675	$21,898	$16,518	$15,454	$15,039
5116	22867	Insj stablj dev w/dcmprn	584	$21,898	$15,504	$14,187	$13,806
5116	23616	Optx prx hmrl fx fix rpr rpl	85	$21,898	$16,605	$21,648	$21,068
5116	24361	Reconstruct elbow joint	23	$21,898	$17,272	$22,975	$22,359
5116	24363	Replace elbow joint	317	$21,898	$20,091	$18,366	$17,874
5116	24371	Revise reconst elbow joint	72	$21,898	$17,729	$23,350	$22,724
5116	25442	Reconstruct wrist joint	52	$21,898	$14,499	$22,901	$22,287
5116	25446	Wrist replacement	87	$21,898	$17,865	$15,517	$15,101
5116	27279	Arthrd si jt perq/min nvas	2,144	$21,898	$16,760	$15,958	$15,530
5116	27702	Reconstruct ankle joint	1,904	$21,898	$26,036	$24,791	$24,126
5116	28705	Fusion of foot bones	99	$21,898	$18,069	$17,808	$17,331
	Weighted Average		**19,517**	**$21,898**	**$22,968**	**$21,898**	**$21,310**

4. APC BUNDLING

CMS does not pay directly for many ancillary services (e.g., lab, some drugs, imaging) when performed with a significant procedure (e.g., a surgery). This creates an efficiency incentive but makes it difficult to compare different types of fee schedules. Milliman GRVUs remove this type of bundling so more direct HCPCS comparisons can be made. Figure 8 shows an example of the bundling impact for emergency room (ER) services and the last column of Figure 7 shows the more limited impact for a surgical APC.

FIGURE 8: COMPARISON OF ALLOWED: CMS OPPS VERSUS MILLIMAN GRVU FOR VARIOUS ER SERVICES

APC	HCPCS	DESCRIPTION	UTILIZATION	CMS OPPS ALLOWED	GEOMETRIC MEAN	MILLIMAN GRVU ALLOWED	MILLIMAN GRVU ALLOWED (W/O ANCILLARY ADJ)
5021	99281	Emr dpt vst mayx req phy/qhp	159,149	$75	$77	$75	$69
5022	99282	Emergency dept visit sf mdm	490,277	$140	$144	$140	$127
5023	99283	Emergency dept visit low mdm	2,425,393	$245	$252	$245	$215
5024	90945	Dialysis one evaluation	2,868	$382	$468	$455	$390
5024	99284	Emergency dept visit mod mdm	3,801,894	$382	$392	$382	$327
5024	G0175	Opps service,sched team conf	1,519	$382	$314	$306	$262
5025	99285	Emergency dept visit hi mdm	3,504,618	$548	$564	$549	$474
5025	G0379	Direct refer hospital observ	29,822	$548	$509	$495	$428

5. DELETED HCPCS

The CMS OPPS fee schedule only includes currently valid HCPCS. Milliman GRVUs maintain support for older codes for a couple of years (trended using CMS fee schedule increases) so that we can apply an RVU for contract values that are using older HCPCS.

Similar to Inpatient services, Milliman Transparent CMS Medicare and GRVU Medicare values may not always be aligned for outpatient services. These GRVU enhancements result in differences between the two values when applied to price transparency data in Milliman Transparent. Figure 9 shows an example of the percent-of-Medicare differences for an outpatient contract at the service line level.

FIGURE 9: PERCENT-OF-MEDICARE: CMS VERSUS GRVUS APPLIED TO RELATIVITY-LEVEL PRICE TRANSPARENCY DATA

PROVIDER NAME	**EVERGREENHEALTH MEDICAL CENTER**
NETWORK NAME	**UHC CHOICE PLUS**
CBSA NAME	**SEATTLE-TACOMA-BELLEVUE, WA METRO AREA**

		A	*B*	*C = B / A*
SETTING	**CATEGORY**	**GRVU PERCENT MEDICARE**	**CMS PERCENT MEDICARE**	**CMS / GRVU**
Outpatient	ED	298%	236%	79%
Outpatient	Surgery	267%	236%	88%
Outpatient	Radiology	321%	215%	67%
Outpatient	Lab	161%	147%	91%
Outpatient	Pharmacy	126%	120%	95%
Outpatient	Other	223%	192%	86%
Outpatient	**Total**	**250%**	**214%**	**86%**

Background

The Hospital Price Transparency regulation (HPT)[1] and Transparency in Coverage Final Rules (TiC)[2] have changed the U.S. healthcare system by requiring both hospitals and payers to publish unblinded, contractual price information for every provider and service code. This paper assumes the reader is already familiar with the concepts discussed in the paper, *Price Transparency in 2023*.[3]

1. Federal Register, Vol. 84, No. 229 (November 27, 2019). Medicare and Medicaid Programs: CY 2020 Hospital Outpatient PPS Policy Changes and Payment Rates and Ambulatory Surgical Center Payment System Policy Changes and Payment Rates. Price Transparency Requirements for Hospitals To Make Standard Charges Public. Final Rule. Retrieved September 20, 2024, from https://www.govinfo.gov/content/pkg/FR-2019-11-27/pdf/2019-24931.pdf.
2. Transparency in Coverage: Final Rule. Retrieved September 20, 2024, from https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/CMS-Transparency-in-Coverage-9915F.pdf.
3. Reijula, E., Smith, C., Ochsner, A., & Hall, E. (September 2023). Price Transparency in 2023. Milliman Price Transparency Solutions for Payers and Providers. Retrieved September 20, 2024, from https://www.milliman.com/-/media/milliman/pdfs/2023-articles/9-11-23_price-transparency-in-2023.ashx.

Caveats

- Throughout this analysis, Milliman relied on data and other information provided by publicly available data sources. Milliman obtained standardized Hospital Price Transparency (HPT) (hospital) and Transparency in Coverage (TiC) (payer) price transparency data from Turquoise Health (https://turquoise.health/) to support the analyses in this paper. Milliman has not audited or verified this data and other information but has reviewed it for reasonableness. Models used in the preparation of our analysis were applied consistent with their intended use. We have reviewed the models, including their inputs, calculations, and outputs, for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP).
- Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Will Fox, FSA, MAAA and Dave McManus, ASA, MAAA are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses in this paper.

Solutions for a world at risk™

Milliman leverages deep expertise, actuarial rigor, and advanced technology to develop solutions for a world at risk. We help clients in the public and private sectors navigate urgent, complex challenges—from extreme weather and market volatility to financial insecurity and rising health costs—so they can meet their business, financial, and social objectives. Our solutions encompass insurance, financial services, healthcare, life sciences, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com

CONTACT

Will Fox
Will.Fox@milliman.com

Dave McManus
David.Mcmanus@milliman.com

© 2024 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.