

# Milliman GlobalRVUs

Will Fox, FSA, MAAA

Ed Jhu, FSA, MAAA

Charlie Mills, FSA, MAAA



## What are GlobalRVUs?<sup>1</sup>

GlobalRVUs are a relative value unit system covering the entire range of services, from hospital to physician, durable medical equipment (DME) to lab, even pharmacy. Use of Relative Value Units (RVUs) is a common practice with payment schedules. The RVUs define cost relativities between services enabling entire schedules to be easily compared. The most well-known examples of this are Medicare's physician RBRVS and Medicare's inpatient diagnosis-related group (DRG) weights. These RVU systems are limited since they focus on a particular type of provider, such as physician or inpatient hospital, and do not relate services across provider types. GlobalRVUs solve this disconnect by providing an RVU system that covers all healthcare services.

GlobalRVUs permit different services to be combined for analysis and have a wide variety of applications, including:

- **Analyzing claims experience.** GlobalRVUs allow you to separate unit cost versus utilization efficiency.
- **Evaluating provider contracts.** GlobalRVUs allow for unit cost aggregation of hospital and physician services.
- **Developing episodes of care and bundled payments.** GlobalRVUs allow the user to understand and remove the unit cost biases in the experience data.
- **Setting and analyzing global risk targets,** particularly across multiple provider organizations with differing contract structures, such as accountable care organizations. GlobalRVUs can be used to analyze opportunities for improvement—for example, identifying high-cost specialists or hospitals in the experience data.

Allowed dollar claims data can be normalized with GlobalRVUs to put the services on a common basis permitting this range of analyses. If charges are not available, GlobalRVUs can still be used as a proxy for charge levels, allowing for different types of utilization efficiency analyses (e.g., episodes and PMPM) and case mix studies.

An added advantage of GlobalRVUs in utilization analyses is that, since potentially confidential average charges are not being used, results can be released externally without breaching confidentiality provisions. The RVUs have taken the place of the allowed charges, thus removing the limitations that might be placed on distributing the analysis.

## About GlobalRVUs

GlobalRVUs consist of three separate components:

- **Medicare physician RVUs.** Physician claims are assigned GlobalRVUs based on Medicare's fee schedules, including DME, lab, ambulance and anesthesia. For services paid using Medicare's RBRVS RVUs for physicians, the GlobalRVUs are equal to Medicare's RVUs. The RVU adjudication process reflects Medicare's claim adjudication rules to adjust the assigned RVUs for modifiers, multiple procedure discounting, and bundling.
- **RBRVS for Hospitals™.** RBRVS for Hospitals is a proprietary Milliman product that contains a RVU schedule for hospitals that is consistent with Medicare's physician RVU schedule. A more detailed description of RBRVS for Hospitals is available on the Milliman website.<sup>2</sup>
- **Prescription drug RVUs.** Prescription drug RVUs are developed based upon average wholesale price (AWP) information. AWP is assigned to each claim by National Drug Code (NDC), adjusted for discounts, dispensing fees and anticipated rebates, then converted to an RVU that is consistent with Medicare's physician RVUs and the RBRVS for Hospitals RVUs.

1 Milliman solutions: GlobalRVUs. <http://milliman.com/GlobalRVUs>

2 Milliman RBRVS for Hospitals. <http://www.milliman.com/expertise/healthcare/products-tools/rbrvs/pdfs/milliman-rbrvs-for-hospitals.pdf>

## Using GlobalRVUs

### TABLE A: CALCULATING A CONVERSION FACTOR

Once RVUs are assigned to services, conversion factors are calculated by dividing total dollars by the RVUs. This can be done by individual procedure or aggregated at any level, even in total across all services.

**TABLE A: CALCULATING A CONVERSION FACTOR**

	ALLOWED CHARGES	GLOBAL RVUS
INPATIENT SERVICES		
APR 047-1	\$8,000	131.583
OUTPATIENT SERVICES		
82441	\$20	.0241
74150	\$425	3.600
PROFESSIONAL SERVICES		
99284	\$122	3.370
PRESCRIPTION DRUGS		
00037580030	\$62	1.477
<b>TOTAL</b>	<b>\$8,629</b>	<b>140.271</b>
CONVERSION FACTOR (ALLOWED CHARGES/RVUS)		\$61.52

Once conversion factors are calculated, they can be compared and analyzed. Due to the multiple applications of GlobalRVUs, a variety of analyses may be performed. Two examples are provided below.

### TABLE B: BENCHMARKING PROVIDER CONTRACTS BY CARRIER

For this example, different types of provider contracts are evaluated for multiple carriers and benchmarked to a base contract. Using GlobalRVUs, average conversion factors are calculated for inpatient, outpatient, and physician services, and can be combined for an overall comparison between carriers. The GlobalRVUs provide case-mix adjustment across contracts with different service mixes without requiring claims under one contract to be repriced under a different contract.

### TABLE C: COMPARISON OF DELIVERY SYSTEMS

For this example, the claims experience for six provider groups is normalized with the GlobalRVUs to isolate unit cost and utilization differences. Conversion factors are calculated as the average allowed charge per RVU. These conversion factors are then benchmarked relative to the area average, thus showing the unit price difference between groups. When this relativity is divided out of the starting allowed PMPM, the adjusted allowed

**TABLE B: BENCHMARKING PROVIDER CONTRACTS BY CARRIER**

TYPE OF SERVICE	BASE	CARRIER 1		CARRIER 2	
	CONVERSION FACTOR	CONVERSION FACTOR	RELATIVE TO BASE	CONVERSION FACTOR	RELATIVE TO BASE
FACILITY INPATIENT	\$62.40	\$65.58	1.05	\$66.58	1.07
FACILITY OUTPATIENT	\$64.09	\$64.23	1.00	\$68.23	1.06
PROFESSIONAL	\$55.98	\$57.25	1.02	\$62.07	1.11
<b>TOTAL</b>	<b>\$60.09</b>	<b>\$61.52</b>	<b>1.02</b>	<b>\$65.10</b>	<b>1.08</b>

**TABLE C: COMPARISON OF DELIVERY SYSTEMS**

PRIMARY CARE GROUP	RISK-ADJUSTED PMPM ALLOWED	RELATIVE COST	PMPM RVUS	UTILIZATION EFFICIENCY	CONVERSION FACTOR	RELATIVE UNIT PRICE
AREA AVERAGE	\$373.70	1.000	6.175	1.000	\$60.52	1.000
GROUP A	\$344.38	0.922	6.196	1.004	\$55.58	0.918
GROUP B	\$421.67	1.128	6.447	1.044	\$65.41	1.081
GROUP C	\$344.95	0.923	5.902	0.956	\$58.45	0.966
GROUP D	\$371.92	0.995	6.042	0.979	\$61.56	1.017
GROUP E	\$366.31	0.980	5.908	0.957	\$62.00	1.024
GROUP F	\$393.11	1.052	6.439	1.043	\$61.05	1.009

PMPM between groups represents differences in resource utilization. This is shown in the last column benchmarked relative to the area average. Note that the utilization efficiency can also be derived directly from the PMPM RVUs if no allowed charge information is available.

## Implementing GlobalRVUs

The GlobalRVUs can be easily attached to any data set using Milliman software. In addition to an interface to run the RVU assignment software, we provide a series of reports, available through Microsoft Excel, that allow you to review the quality of the data input, ensure that the RVUs have been properly assigned, and review the results of the RVU assignments.



Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

[milliman.com](http://milliman.com)

### CONTACT

Will Fox  
[will.fox@milliman.com](mailto:will.fox@milliman.com)

Ed Jhu  
[ed.jhu@milliman.com](mailto:ed.jhu@milliman.com)

Charlie Mills  
[charlie.mills@milliman.com](mailto:charlie.mills@milliman.com)