California Workers' Compensation Institute

Spotlight Report

The Impact of the California Workers' Compensation Official Medical Fee Schedule's New Geographic Adjustment Factor

Stacy L. Jones **October 2020**

Background

In 2012 the California Legislature passed SB 863, which amended Labor Code section 5307.1(a)(2)(C) and directed the Administrative Director to adopt an official medical fee schedule based on Medicare's Resource-Based Relative Value Scale (RBRVS)[1] for physician services and non-physician practitioner services. The RBRVS system calculates payment for services based on the resources needed to provide the services. There are three components of the resource costs: physician work, practice expense, and professional liability insurance. In addition to the relative value units (RVUs) for each of the resource costs, the payment formula also includes a geographic adjustment factor (GAF) and a conversion factor to translate the combined units into dollar values.

Section 1848(e) of the Social Security Act mandates that the Centers for Medicare & Medicaid Services (CMS) establish a geographic practice cost index (GPCI) for every Medicare payment locality as part of the RBRVS fee schedule. First implemented in 1992, the GPCIs are used in the calculation of each of the three components of a procedure's relative unit (*i.e.*, the RVUs for work, practice expense, and malpractice), and are required to be updated at least every three years. Inclusion of the geographic factor in the calculation of each of the RVUs allows for adjustment of variables such as non-physician staff wages, office rent, medical liability insurance, etc.[2]

In 2013, when the California Division of Workers' Compensation (DWC) began the process of creating an RBRVS-based fee schedule, the Medicare geographic adjustment factors for the state had not been updated since 1997 and were considered unrepresentative of geographic expense differentials. Beginning with implementation of the new Official Medical Fee Schedule for Physician and Non-Physician Practitioner Services in 2014, the DWC adopted a statewide geographic adjustment factor for use in payment calculations in lieu of the outdated Medicare GPCIs. In 2014, Congress passed the Protecting Access to Medicare Act (PAMA), which required that in 2017 Medicare begin transitioning away from the nine payment localities used to calculate physician payments in California and begin a shift toward the use of Metropolitan Statistical Area (MSA)[3] localities, as delineated by the Office of Management and Budget (OMB).[4]

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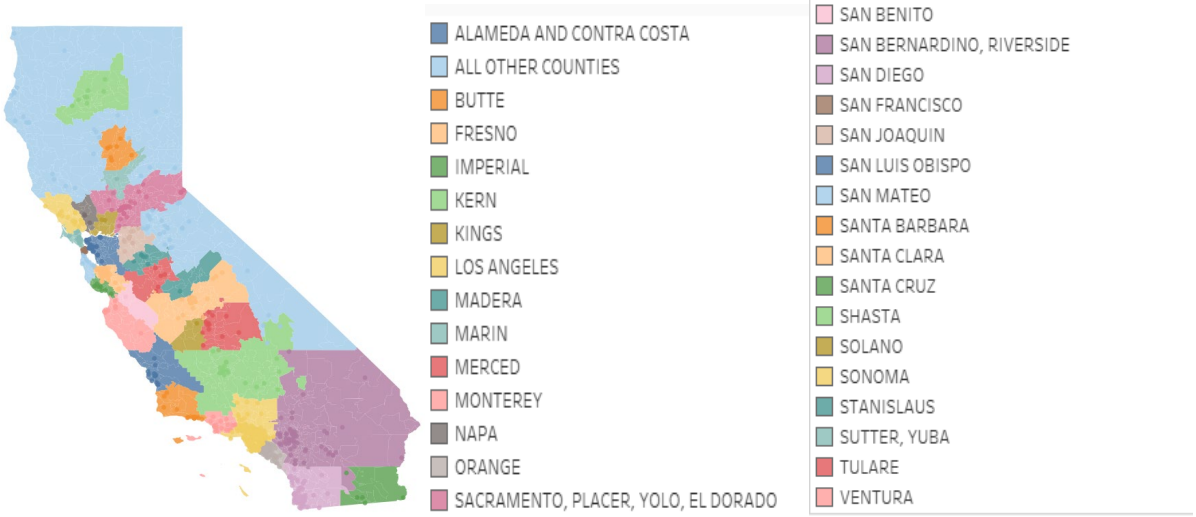
[1] Medicare adopted its RBRVS system in 1992 as a method to pay for services based on the resource costs of providing the services. Resource costs encompass 3 components: physician work, practice expense and malpractice insurance.
[2] See Appendix 1 for a table of component indices for GPCIs.
[3] MSAs, delineated by the U.S. Office of Management and Budget based on Census Bureau data, are used for statistical purposes and to administer Federal programs. https://www.census.gov/programs-surveys/metro-micro/about.html
[4] Public Law 113-93-Apr. 1, 2014. *Protecting Access to Medicare Act of 2014*. https://www.govinfo.gov/content/pkg/PLAW-113publ93/pdf/PLAW-113publ93.pdf

During the 6-year transition (beginning in 2017 with full implementation in 2022) the federal legislation directed CMS to incorporate a blended weighting factor into the GPCIs, with the stipulation that the resulting values for each year could not be less than what they would have been under the old system for transition areas.[5] Under the transition requirements, CMS grouped California's 58 counties into 32 MSA-based payment localities to replace the nine that had been used.

In March 2018, the DWC determined that adopting Medicare's MSA-based localities and GAFs "would improve payment accuracy and would better align OMFS allowances with Medicare rates and private payer payments,"[6] and began the regulatory process to adopt the Medicare change. During the regulatory hearings that followed, some stakeholders raised concerns that adoption of the locality-specific geographic adjustment factors could cause physicians in rural areas to exit workers' compensation because of the lower fees allowed in those localities, and that providers with multiple offices could bill out of areas other than those where the services were rendered in order to be paid higher fees. Weighing those concerns, in late 2018 the DWC adopted the regulations which incorporated the MSA-based GPCI values into the OMFS for services rendered to injured workers on or after January 1, 2019. Table 1 lists the most populous counties within each MSA-based locality.[7]

Table 1: Distribution of California Counties Within Medicare's 32 MSA-Based Localities



Objective

The objective of this study is to analyze the initial impact of switching from a Statewide Average GAF to the MSA-based locality GAF for payments under the OMFS for Physician and Non-Physician Practitioners. The study uses medical service and payment data from calendar year (CY) 2018, the final year prior to the adoption of the MSA-based GPCI values, and from CY 2019, the first year under the new system, to measure changes in:

[5] The transition areas were defined as the 2013 fee schedule areas for the "rest-of-State" payment locality and payment locality 3 (Marin/Napa/Solano counties).
[6] State of California Department of Industrial Relations, Division of Workers' Compensation. *Initial Statement of Reasons. Subject Matter of Regulations: Official Medical Fee Schedule Physician Fee Schedule, Title 8 California Code of Regulations Sections 9789.12.1 et seq.* March 2018.
[7] CMS' Medicare National Physician Fee Schedule Relative Value Files RVU19A, 19LOCCO file.

- the distribution of OMFS payments and services for Evaluation and Management (E&M) services by MSA-assigned counties in the first year following the adoption of the MSA-based GPCI;
- the average amounts paid within the MSA-assigned counties;
- the overall mix of E&M services used within the state; and
- the proportion of E&M services that were paid below the fee schedule amount, as well as the change in the average amount of the discount.

Data Sources and Methods

The data for this study was extracted from CWCI's Industry Research Information System[8] database. The author limited the study to E&M office visit services[9] provided to California injured workers during calendar years 2018 and 2019. These services represent initial and follow-up office visits which together accounted for 91.6 percent of all E&M services in 2018.[10] Since the E&M codes used in the study are used by both primary and secondary treating physicians providing core services to injured workers, they enable inclusion of the widest array of geographic locations. Calculating fee schedule allowances is also much more straightforward for E&M services than for services that fall under multiple procedure rules (*i.e.,* physical medicine, surgery, and radiology).

The data extract included the date of service, the service provider's ZIP code and the amount paid for the service. The service provider ZIP codes were used to identify the locality for the service and the correct geographic practice cost index values, and the RVUs[11] for each code were used to calculate the fee schedule allowance.

Many providers and payers have in place discounting agreements which required the calculation of the fee schedule allowed amounts for comparison to the actual paid amounts. To calculate the fee schedule allowance, the author used the following formula:

[(Work RVU * Work GPCI) +
(Non-Facility Practice Expense RVU * Practice Expense GPCI) +
(Malpractice Insurance RVU * Malpractice Insurance GPCI)] * Conversion Factor = Fee Schedule Allowance

Using the provider ZIP code attached to the paid service, and the Medicare mapping table,[12] the author assigned the locality and GPCI values[13] to each service line. Services with out-of-state ZIP codes were omitted from the fee schedule calculations.

Table 2 lists the 10 Current Procedural Terminology (CPT) codes for office visits and shows the lowest, median, and highest calculated fee schedule values for each code, as well as the 2018 fee schedule values for comparison.

[8] IRIS is CWCI's proprietary database of California workers' compensation claims compiled from insurers representing approximately 60 percent of the insured market as well as self-insured employers.
[9] Services were identified using American Medical Association Current Procedural Terminology codes 99201 through 99215. Descriptions for the codes are included in Appendix 4.
[10] Jones, S. *Trends in the Utilization and Reimbursement of California Workers' Compensation Professional Medical Services, 2013-2018. CWCI Research Update.* February 2020.
[11] Relative value units were obtained from the CMS' Medicare National Physician Fee Schedule Relative Value Files RVU18A and RVU19A. See Appendix 2 for table extract.
[12] The 2018 End of Year ZIP Code File was used to map the provider's ZIP code to the correct locality. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/FeeScheduleGenInfo/index
[13] Appendix 3 provides a listing of 2019 GPCI values for each locality.

Table 2: Fee Schedule Payment Amounts for E&M Visit Codes

Range for 2019 Fee Schedule Allowance by CPT Code				
CPT Code	Low	Median	High	2018 OMFS Value
99201	$61.16	$62.09	$70.80	$62.48
99202	$101.69	$103.15	$118.38	$104.53
99203	$143.39	$145.35	$165.51	$149.04
99204	$217.05	$219.83	$247.95	$225.95
99205	$272.41	$275.81	$309.97	$283.28
99211	$30.84	$31.35	$37.05	$30.90
99212	$60.41	$61.33	$71.11	$61.68
99213	$98.88	$100.25	$114.60	$101.40
99214	$144.63	$146.58	$166.91	$149.33
99215	$193.16	$195.68	$221.68	$200.52

Findings

As shown in Exhibit 1, Los Angeles County accounted for 35.8 percent of the E&M payments for the subset of office visit codes in 2018 and 30.8 percent of the payments for those codes in 2019 – far more than any other MSA-assigned counties. The declining proportion of payments going to Los Angeles County in the first year following adoption of the MSA-based GPCI was offset by an increase in the proportion going to neighboring San Bernardino/Riverside, which went from 8.7 percent of the payments in 2018 to 13.9 percent in 2019 after a large occupational medicine group expanded service locations in the region.

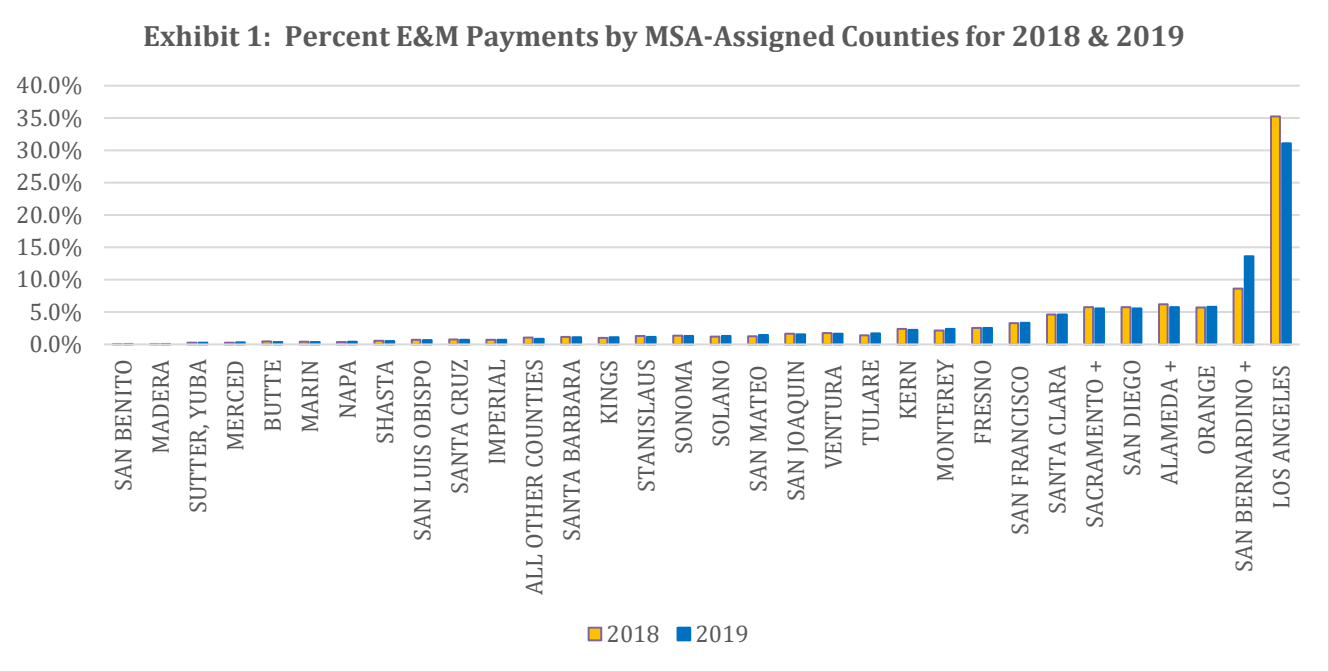


Exhibit 2 shows the distribution of E&M services for 2018 and 2019 across localities based on the count of E&M codes in the subset. As with the payment distributions, Los Angeles County saw its share of these E&M services decline by five percentage points between 2018 and 2019, while San Bernardino/Riverside experienced an increase of five percentage points.

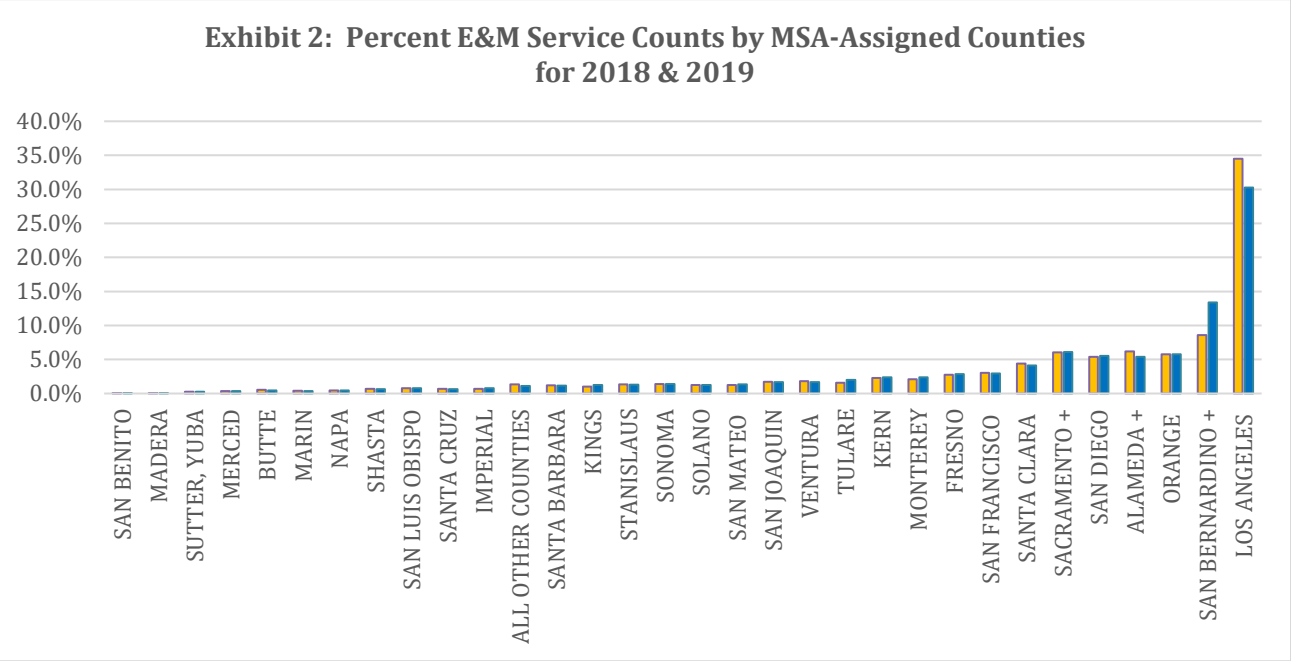


Exhibit 3 shows the distribution of E&M codes, by volume, for each of the study years. In both years, the follow-up office visit codes (CPT codes 99211-99215) for established patients accounted for the highest proportion of services – 86.5 percent in 2018 and 80.5 percent in 2019. The 6-percentage point increase in new patient office visits was spread across the five new visit codes (99201-99205), with the greatest increases occurring in 99203 (+2.8 percentage points) and 99204 (+2.3 percentage points).

Exhibit 3: E&M Visit Code Distribution for CY 2018 & 2019

CPT Code	2018	2019
99201	0.3%	0.4%
99202	1.8%	2.4%
99203	5.6%	8.4%
99204	4.9%	7.2%
99205	0.8%	1.1%
99211	0.3%	0.2%
99212	4.4%	3.6%
99213	36.8%	38.2%
99214	42.0%	35.6%
99215	3.0%	2.9%

Exhibit 4 shows the details for CPT code 99213, which was the highest volume code in 2019. Although the Bay Area localities (which include Alameda/Contra Costa, San Francisco, San Mateo, and Santa Clara) received the highest payments, their combined share of total services under 99213 was only 6.9 percent.

Exhibit 4: 2019 Fee Schedule Allowance and Count Distribution by MSA-Assigned Counties for Code 99213

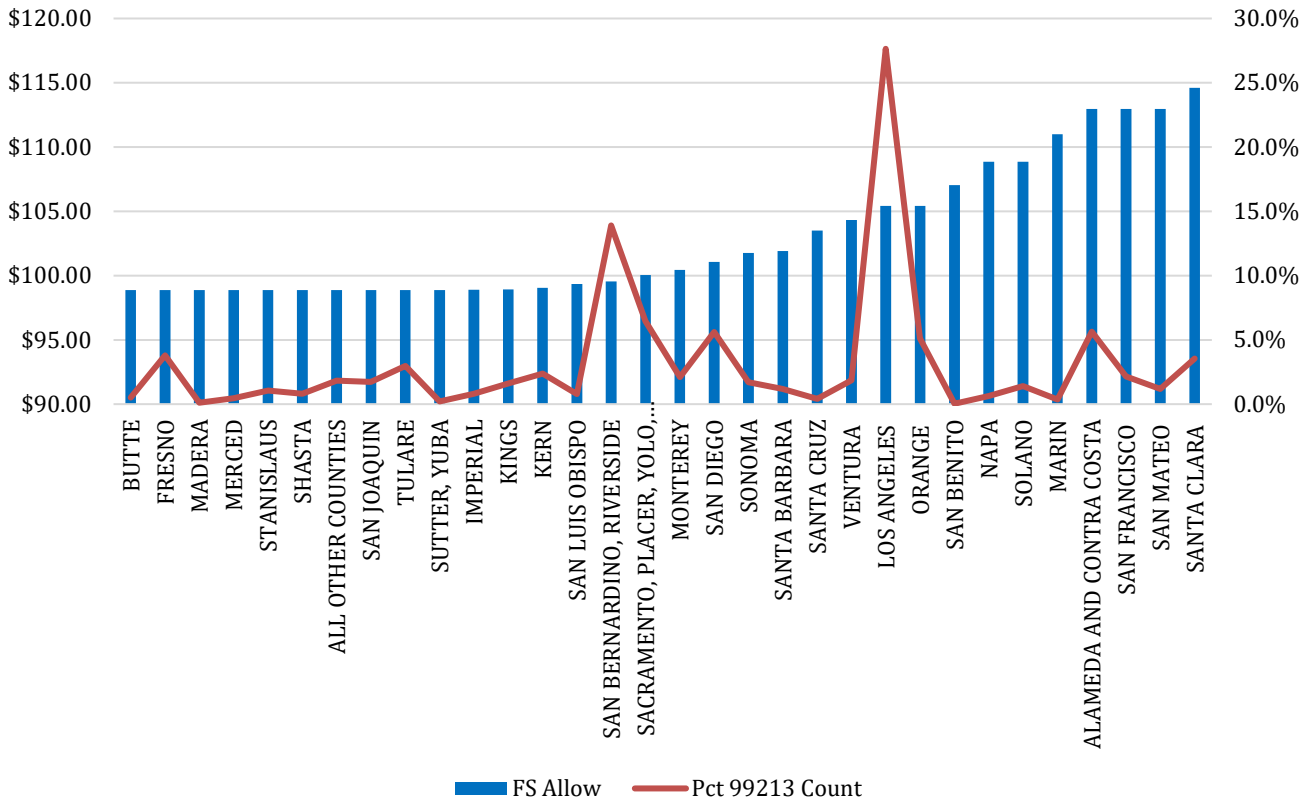


Exhibit 5 shows the geographic variability in average payments between 2018 and 2019. Accounting for the relative proportion for each code, the author calculated the weighted averages for all six office visit codes for dates of service in 2018 and 2019. The results show the largest increase was in Marin County (+12.1 percent), while the largest decrease was in the more rural Kings County (-11.3 percent). Although the average payment increases for Los Angeles County, Orange, and Riverside/San Bernardino were relatively small compared to the Bay Area localities, the increases in those Southern California counties had a greater impact due to the higher volume of services in these areas, as shown in Exhibit 4.

Exhibit 5: Percent Change in Average Fee Schedule Allowance and Average Payment Amounts by MSA-Assigned Counties, 2018 vs. 2019 Dates of Service

MSA-Assigned Counties	Avg OMFS Allowance	Avg Paid	MSA-Assigned Counties	Avg OMFS Allowance	Avg Paid
KINGS	-13.0%	-11.3%	SUTTER, YUBA	1.2%	-0.1%
KERN	-5.9%	-7.9%	SAN JOAQUIN	0.8%	1.4%
BUTTE	-4.8%	-7.4%	MADERA	8.0%	1.7%
SANTA BARBARA	-1.8%	-4.9%	VENTURA	5.2%	1.8%
SAN LUIS OBISPO	-3.4%	-4.8%	SAN BENITO	7.7%	2.0%
SAN DIEGO	-1.0%	-4.5%	SHASTA	3.9%	2.0%
IMPERIAL	-4.8%	-3.5%	SAN BERNARDINO, RIVERSIDE	1.0%	2.6%
TULARE	-5.4%	-3.3%	LOS ANGELES	4.5%	2.9%
FRESNO	-2.0%	-2.5%	ORANGE	6.7%	3.2%
SACRAMENTO, PLACER, YOLO, EL DORADO	-1.5%	-2.4%	NAPA	8.2%	4.6%
MERCED	-6.6%	-2.3%	SAN FRANCISCO	13.9%	6.3%
SONOMA	0.6%	-1.8%	SAN MATEO	13.1%	8.2%
STANISLAUS	-1.2%	-1.3%	ALAMEDA AND CONTRA COSTA	12.9%	8.2%
SANTA CRUZ	3.9%	-1.0%	SOLANO	9.0%	8.2%
MONTEREY	2.1%	-0.9%	SANTA CLARA	13.8%	8.7%
ALL OTHER COUNTIES	-1.8%	-0.8%	MARIN	10.0%	12.1%

An important factor influencing the average paid results shown in Exhibit 5 is the prevalence of discount contracts in California workers' compensation. Exhibit 6 shows that more than 75 percent of the services included in the study subset were paid at discounted rates below the fee schedule value for 2018 and 2019 dates. The data further show that the average discount increased by 1.6 percentage points over the 2-year study period, from 15.5 percent in 2018 to 17.1 percent in 2019.

Exhibit 6: Paid Below Fee Schedule

Year	Percent of Service Codes	Average Reduction
2018	78.3%	-15.5%
2019	76.6%	-17.1%

Discussion

When the DWC began the process of creating an RBRVS-based fee schedule for Physician and Non-Physician Practitioner Services in 2013, it adopted statewide geographic adjustment factors in place of the outdated Medicare GPCIs for use in payment calculations. Incorporating the statewide GAF into the OMFS allowed medical providers in rural areas of the state to receive higher reimbursements than they otherwise would have, benefitting to some degree from the averaging in of values for high cost metropolitan areas, while conversely, medical providers in high-cost areas such as the San Francisco Bay Area were underpaid to some degree. The statewide GAF remained in place until January 2019 when the Division adopted Medicare's MSA-based localities and GAFs, in order to improve payment accuracy and better align the fees allowed under the OMFS with those allowed by Medicare and private payers.

The move from a statewide average GAF to a locality-specific GAF allowed for increased reimbursements to workers' compensation providers in areas where the cost of providing medical care is higher. The preliminary results from the first year following the implementation of this change, however, found no significant shift in the overall distribution of total payments within the state from 2018 to 2019.

The impact of the change in the GAF on medical providers varied, depending on where they practice. Likewise, employers with a workforce that predominantly lives and receives treatment for occupational injuries within a single locality also saw their workers' compensation medical payments either increase or decrease, depending on the GAF for that locality. In addition, the prevalence of discounting contracts mitigated the impact of the fee schedule changes, which included the 1.4 percent increase in the conversion factor, slight adjustments to some relative values, as well as the potentially more substantial geographic factor changes.

There were two concerns raised during the regulatory process regarding adoption of the Medicare GPCIs:

1) potential abusive billing practices whereby providers with multiple locations might shift billing locations to a higher valued practice location ZIP code; and

2) rural providers might cease providing services to workers' compensation patients due to lower payments.

This analysis of the medical services provided to injured workers in the first year following the adoption of the new geographic adjustment factor, and the associated payments for those services, suggests that neither of these two issues have yet to materialize. The distribution data included in Exhibits 1 and 2 show there was no significant shift in geographic localities from 2018 to 2019, with the exception of the shift that occurred between Los Angeles and Riverside/San Bernardino following the opening of a large new occupational clinic in the Inland Empire. Furthermore, while rural providers continued to account for only a small share of all medical services rendered to injured workers in California, the subset of E&M medical services reviewed in this analysis showed no decline in the proportion of services delivered in the rural areas of the state.

This report, however, only provides a preliminary assessment of the impact of the switch to the new geographic variability factor within the OMFS. In future studies on workers' compensation medical treatment and costs the Institute will monitor and assess the longer term impact that the adoption of the MSA-based locality geographic adjustment factor has on the utilization and reimbursement of services covered under the OMFS for Physician and Non-Physician Practitioners.

Appendix 1.

Breakdown of GPCIs into Six Component Indices[14]

GPCI	Component Index	Measures Geographic Differences in:
Physician Work	Single Component	Physician wages
Practice Expense	*Employee Wage*	Wages of clinical and administrative office staff
	Purchased Services	Cost of contracted services (e.g., accounting, legal, advertising, consulting, landscaping)
	Office Rent	Physician cost to rent office space
	Equipment, Supplies, and Other	Practice expenses for inputs such as chemicals and rubber, telephone use and postage
Malpractice	Single Component	Cost of professional liability insurance

Appendix 2.

Resource Cost Components: Medicare Non-Facility Relative Value Units, 2018 and 2019

	RVU18A - RVU18D			RVU19A - RVU19D		
E&M Visit Code	Physician Work RVU	Physician Expense RVU	Malpractice Insurance RVU	Physician Work RVU	Physician Expense RVU	Malpractice Insurance RVU
99201	0.48	0.73	0.05	0.48	0.76	0.05
99202	0.93	1.11	0.08	0.93	1.14	0.08
99203	1.42	1.48	0.15	1.42	1.49	0.14
99204	2.43	2.00	0.22	2.43	1.99	0.21
99205	3.17	2.39	0.29	3.17	2.38	0.27
99211	0.18	0.42	0.01	0.18	0.45	0.01
99212	0.48	0.72	0.04	0.48	0.75	0.04
99213	0.97	1.02	0.07	0.97	1.05	0.07
99214	1.5	1.44	0.10	1.50	1.46	0.10
99215	2.11	1.84	0.15	2.11	1.84	0.15

The conversion factor increased by 1.4 percent from 2018 to 2019 ($45.2371 to $45.8513).

[14] MaCurdy, T., Shaftrin, J., DeLeire, T., DeVaro, J., Bounds, M., Pham, D., and Chia, A. *Geographic Adjustment of Medicare Payments to Physicians: Evaluation of IOM Recommendations*. Accumen, LLC. July 2012. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/Downloads/Geographic_Adjustment_of_Medicare_Physician_Payments_July2012.pdf

Appendix 3.

§ 9789.19 - 2018 Statewide Avg Geographic Adjustment Factors for Resource Cost Components

Physician Work GAF	Practice Expense GAF	Malpractice Insurance GAF
1.041	1.166	0.605

Medicare 2019 Geographic Practice Cost Index (GPCI) Values

Locality Number	Locality Name	Physician Work GPCI	Practice Expense GPCI	Malpractice Ins. GPCI
54	BAKERSFIELD, CA	1.020	1.074	0.618
55	CHICO, CA	1.020	1.074	0.562
71	EL CENTRO, CA	1.020	1.074	0.570
56	FRESNO, CA	1.020	1.074	0.562
57	HANFORD-CORCORAN, CA	1.021	1.074	0.562
18	LOS ANGELES-LONG BEACH-ANAHEIM (LOS ANGELES CNTY), CA	1.046	1.177	0.694
26	LOS ANGELES-LONG BEACH-ANAHEIM (ORANGE CNTY), CA	1.046	1.177	0.694
58	MADERA, CA	1.020	1.074	0.562
59	MERCED, CA	1.020	1.074	0.562
60	MODESTO, CA	1.020	1.074	0.562
51	NAPA, CA	1.055	1.256	0.458
17	OXNARD-THOUSAND OAKS-VENTURA, CA	1.024	1.176	0.673
61	REDDING, CA	1.020	1.074	0.562
75	REST OF CALIFORNIA, CA	1.020	1.074	0.562
62	RIVERSIDE-SAN BERNARDINO-ONTARIO, CA	1.021	1.074	0.753
63	SACRAMENTO--ROSEVILLE--ARDEN-ARCADE, CA	1.027	1.092	0.562
64	SALINAS, CA	1.026	1.101	0.562
72	SAN DIEGO-CARLSBAD, CA	1.023	1.116	0.570
07	SAN FRANCISCO-OAKLAND-HAYWARD (ALAMEDA/CONTRA COSTA CNTY), CA	1.075	1.325	0.421
52	SAN FRANCISCO-OAKLAND-HAYWARD (MARIN CNTY), CA	1.065	1.291	0.458
05	SAN FRANCISCO-OAKLAND-HAYWARD (SAN FRANCISCO CNTY), CA	1.075	1.325	0.421
06	SAN FRANCISCO-OAKLAND-HAYWARD (SAN MATEO CNTY), CA	1.075	1.325	0.421
65	SAN JOSE-SUNNYVALE-SANTA CLARA (SAN BENITO CNTY), CA	1.052	1.214	0.562
09	SAN JOSE-SUNNYVALE-SANTA CLARA (SANTA CLARA CNTY), CA	1.083	1.354	0.388
73	SAN LUIS OBISPO-PASO ROBLES-ARROYO GRANDE, CA	1.020	1.084	0.562
66	SANTA CRUZ-WATSONVILLE, CA	1.030	1.161	0.562
74	SANTA MARIA-SANTA BARBARA, CA	1.032	1.126	0.562
67	SANTA ROSA, CA	1.024	1.130	0.562
68	STOCKTON-LODI, CA	1.020	1.074	0.562
53	VALLEJO-FAIRFIELD, CA	1.055	1.256	0.458
69	VISALIA-PORTERVILLE, CA	1.020	1.074	0.562
70	YUBA CITY, CA	1.020	1.074	0.562

Appendix 4.

American Medical Association Current Procedural Terminology (CPT) Code Descriptions

99201	Office or other outpatient visit for the evaluation and management of a new patient… Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent face-to-face with the patient and/or family.
99202	Office or other outpatient visit for the evaluation and management of a new patient… Usually, the presenting problem(s) are of low to moderate severity. Typically, 20 minutes are spent face-to-face with the patient and/or family.
99203	Office or other outpatient visit for the evaluation and management of a new patient… Usually, the presenting problem(s) are of moderate severity. Typically, 30 minutes are spent face-to-face with the patient and/or family.
99204	Office or other outpatient visit for the evaluation and management of a new patient… Usually, the presenting problem(s) are of moderate to high severity. Typically, 45 minutes are spent face-to-face with the patient and/or family.
99205	Office or other outpatient visit for the evaluation and management of a new patient… Usually, the presenting problem(s) are of moderate to high severity. Typically, 60 minutes are spent face-to-face with the patient and/or family.
99211	Office or other outpatient visit for the evaluation and management of an established patient, that may not require the presence of a physician or other qualified health care professional. Usually, the presenting problem(s) are minimal. Typically, 5 minutes are spent performing or supervising these services.
99212	Office or other outpatient visit for the evaluation and management of an established patient… Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent face-to-face with the patient and/or family.
99213	Office or other outpatient visit for the evaluation and management of an established patient… Usually, the presenting problem(s) are of low to moderate severity. Typically, 15 minutes are spent face-to-face with the patient and/or family.
99214	Office or other outpatient visit for the evaluation and management of an established patient… Usually, the presenting problem(s) are of moderate to high severity. Typically, 25 minutes are spent face-to-face with the patient and/or family.
99215	Office or other outpatient visit for the evaluation and management of an established patient… Usually, the presenting problem(s) are of moderate to high severity. Typically, 40 minutes are spent face-to-face with the patient and/or family.

About the Author

Stacy L. Jones is a Senior Research Associate at the California Workers' Compensation Institute.

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California Workers' Compensation Institute

The California Workers' Compensation Institute, incorporated in 1964, is a private, nonprofit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system. Institute members include insurers that collectively write more than 81 percent of California workers' compensation direct written premium, as well as many of the largest public and private self-insured employers in the state. Additional information about CWCI research and activities is available on the Institute's website (www.cwci.org).

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