

## Issue Brief: Calculating Adjustment Factors for Primary Care Capitation Payments in California

Since the fall of 2023, Onpoint Health Data has been honored to support the California Advanced Primary Care Initiative (CAPCI) through our work as the data management and analytics vendor for California's Integrated Healthcare Association (IHA). One of CAPCI's focus areas is capitation (see this page's sidebar).

Capitation, a form of non-claims payment (NCP), is common in California. Unlike a fee-for-service (FFS) model - in which healthcare providers are paid based on the volume of specific services that they provide to patients - capitation pays providers based on the number of patients under their care. ("Capitation" is derived from the late Latin word *capitatio* 'poll tax', which came from *caput* 'head'.)

Patient care, of course, is not identical (e.g., patients who are older or who have chronic conditions often require more care and incur higher expenditures). This makes it important to ensure that capitation payments to practices are based on each practice's respective patient population. Under capitation, this is done using "adjustment" factors (or "adjusters").

Most commercially available adjusters are focused on identifying the expected total cost of care for a patient and are not specific to primary care. To help address our clients' interest in focusing on primary care, Onpoint developed a method to adjust capitation payments related specifically to primary care - the amount paid to a practice for primary care for a specific population - by calculating adjustment factors based on the interrelationship between primary care spending and a patient's age, sex, health status, and health plan type (i.e., commercial, Medicaid (Medi-Cal in California), Medicare). In this brief, we describe our method and provide examples of how these adjustment factors can be used.

### **IMPROVING CARE IN CALIFORNIA: CAPCI & IHA**

CAPCI is a joint effort between IHA and the California Quality Collaborative (CQC), a healthcare improvement organization that is working to advance primary care through the development of a set of shared attributes and common performance measures that help identify high-performing primary care practices using a capitation approach. CAPCI is a partnership with payers and practices who are collaborating to improve primary care in California by adopting a value-based payment model for primary care practices, setting increased primary-care investment goals, and providing technical assistance to practices.

In January 2022, CQC partnered with IHA to bring together four large healthcare purchasers in California to pilot an initial set of practice-level performance measures, which were calculated by Onpoint. These measures track the percentage of patients in a practice who underwent recommended cancer screenings, received recommended immunizations, and whose blood pressure and blood sugar were within recommended ranges, among other factors. CAPCI's goal is to use this measure set to determine annual performance-based payments for practices and to report quarterly results to support practice improvement efforts.

## OVERVIEW OF ADJUSTMENT FACTORS & THEIR CALCULATION

As its name suggests, an adjustment factor is a factor applied to a result that adjusts for specific characteristics. In healthcare, this allows for a more equitable evaluation of different primary care practices. When comparing the performance of two different practices on the same set of cost and quality measures, the results may diverge if one practice had less healthy patients that required higher expenditures while another had healthier patients that required fewer expenditures. Adjustment factors help make the practices' measure results more comparable for analysis.

Looking at only the total expenditure amounts between two such practices (table below),

Example Practice	Average Age (Years)	Average ACG Risk Score	Annual Total Expenditures per Patient – Unadjusted	Annual Total Expenditures per Patient – Adjusted
Practice 1	58	1.8	\$10,000	\$8,500
Practice 2	48	1.3	\$7,500	\$8,000

When determining primary care capitation payments, sometimes known as per member per month (PMPM) primary care payments, the characteristics of each practice's patient population should be considered to assess the appropriate level of care required by their patients.

For the CAPCI initiative, Onpoint derived the primary care adjustment factors from exponentiated regression coefficients using a member-level, multi-variate regression. The regression model evaluated the association between the following factors:

- Primary care PMPM spending
- Sex
- Age band (in years)
- Payer type (commercial, Medi-Cal, Medicare)
- Johns Hopkins ACGs

Johns Hopkins ACGs assign a risk score to a patient based not only on the specific healthcare conditions that they have but also on the specific *combination* of conditions that they have –

it might look like Practice 1 performed poorly (i.e., incurred more expenditures) compared to Practice 2. However, when adjusted for age and health status (using Johns Hopkins Adjusted Clinical Groups (ACGs), a widely used risk-scoring system), the results actually may be in a similar range. It is even possible that, given its younger patient population, Practice 2 performed less well compared to Practice 1. Practice 2's lower adjusted costs may be partly due to the fact that it is a family medicine practice, meaning it treats patients of all ages (including healthier, younger patients), while Practice 1 focuses on internal medicine and treats only adults (ages 18+ years).

a concept known as “co-morbidities,” which is considered a strong predictor of the amount of care that they will need.

Expenditures were based on the allowed amount, which is the sum of payments by both health plans (i.e., the paid amount for FFS arrangements and the FFS “equivalents” for capitation arrangements) and members (i.e., their deductible, copay, and coinsurance). The results were stratified by payer type (i.e., commercial, Medi-Cal, and Medicare).

Separate models were run for each sex, age band, payer type, and ACG risk score to account for differences in patient populations and fee schedules (i.e., the contracted rates between a health plan and practice). The models also accounted for reasons for enrollment (e.g., many low-income women receive Medi-Cal for pregnancy-related services, while individuals under 65 years of age who have a specific disability or end-stage renal disease often are covered by Medicare). Additionally, Medi-Cal and Medicare pay lower rates than commercial plans, so stratifying by payer type was important.

The table below shows an excerpt of the primary care adjustment factors developed for sex, age band, and health status (i.e., ACG risk score range) strata for adults (ages 18+ years) who had commercial health coverage.

Sex	Age Band	ACG Risk Score Range	Adjustment Factor	Sex	Age Band	ACG Risk Score Range	Adjustment Factor
M	18-34	< 1.00	1.000	F	18-34	< 1.00	1.000
		1.00 - 2.00	2.002			1.00 - 2.00	1.467
		> 2.00	2.655			> 2.00	1.964
	35-44	< 1.00	0.970		35-44	< 1.00	0.913
		1.00 - 2.00	1.985			1.00 - 2.00	1.476
		> 2.00	2.704			> 2.00	2.086
	45-54	< 1.00	1.083		45-54	< 1.00	0.994
		1.00 - 2.00	2.086			1.00 - 2.00	1.812
		> 2.00	2.849			> 2.00	2.581
	55-64	< 1.00	1.207		55-64	< 1.00	1.060
		1.00 - 2.00	2.169			1.00 - 2.00	1.761
		> 2.00	3.023			> 2.00	2.577
65+	< 1.00	1.270	65+	< 1.00	1.021		
	1.00 - 2.00	1.757		1.00 - 2.00	1.294		
	> 2.00	2.086		> 2.00	1.533		

### USING ADJUSTMENT FACTORS IN NON-CLAIMS PAYMENTS

Adjustment factors also can be used to support analyses beyond primary care. For non-claims payments, adjustment factors are applied as a multiplier to the unadjusted (or “base”) primary care capitation payment rate:

- An adjustment factor less than 1.000 **lowers** the base payment rate
- An adjustment factor greater than 1.000 **raises** the base payment rate

The table below shows an example calculation that uses \$50.00 as the unadjusted primary care capitation payment rate. The calculation simply multiplies the base capitation payment by the adjustment factor to calculate the adjusted payment rate for each patient.

Example Patient	Sex	Age (Years)	ACG Risk Score	Primary Care Adjustment Factor	Primary Care Capitation Payment Rate - Unadjusted	Primary Care Capitation Payment Rate - Adjusted
Patient 1	M	38	1.25	1.985	\$50.00	\$99.25
Patient 2	F	38	1.25	1.476	\$50.00	\$73.80
Patient 3	M	19	2.50	2.655	\$50.00	\$132.75
Patient 4	F	38	0.85	0.913	\$50.00	\$45.65

## THE IMPACT OF ADJUSTED PRIMARY CARE CAPITATION PAYMENTS

By accounting for differences in patient populations, these adjustment factors enable meaningful comparisons between primary care practices situated within California’s highly diverse healthcare landscape. By providing higher payments to practices for individuals who are less healthy, payers can help ensure that proper care is available to higher-risk patients while distributing appropriate capitation payments across practices.

As the healthcare system continues to shift toward a value-based system that is focused on both the cost of services provided and the quality of care delivered, applying appropriate adjustments will continue to become increasingly important.

## ABOUT THE AUTHOR



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Onpoint consultants Karl Finison and Dan Gottlieb as well as IHA’s Dolores Yanagihara also contributed to this work.

## ABOUT ONPOINT HEALTH DATA

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