

Provider payment: What does risk adjustment have to do with it?

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The landscape in the wake of the Patient Protection and Affordable Care Act (ACA) has changed for all parties involved, including health insurers, providers, and the insured themselves.

Along with legislative changes that aim to decrease the number of uninsured individuals—such as the elimination of underwriting and the creation of state health exchanges—the tide of change is also drifting toward improvement in the quality of care and risk sharing between providers and payers. The continuing cost pressure on the payers, through competitive forces and rate review mechanisms, further motivates insurers to develop alternative provider reimbursement arrangements to align financial incentives and thereby reduce costs.

The predominant provider reimbursement arrangement remains to be fee for service, which, as implied by the name, is where insurers pay providers piecemeal based on the type and quantity of services provided to an insured member. It is like ordering off a menu and paying for each item according to its price. The downfall of this type of arrangement is that the financial incentive for providers is directly tied to the quantity and unit cost of services provided rather than the quality and necessity of those services. This arrangement does not incentivize managing care or taking steps to reduce the use of high-cost, low-value services.

On the other end of the reimbursement spectrum, the capitated provider arrangement provides a fixed per-member-per-month (PMPM) payment to the provider to deliver the needed medical services. While this arrangement addresses some of the adverse incentives of fee-for-service reimbursement, it transfers both utilization and severity risk (or case mix) from the insurer to the provider. Utilization risk is at least partly controllable by providers, but severity risk is not. That makes this arrangement less attractive to many providers. Further, ceding what is really insurance risk to providers is not allowed in some states (e.g., Nevada).

As a result, many health plans and provider groups are adopting alternative payment arrangements that emphasize a shared responsibility in the care provided to members. Such arrangements aim to distribute the risk between health plans and providers equitably while better aligning insurer and provider incentives, thereby reducing health plan spending and increasing quality of care. Incorporating risk adjustment into the provider payment risk-sharing arrangement is becoming an industry standard. There are a number of risk-adjustment products available on the market, and it is crucial for both parties (the carrier and provider) to understand the implications of using a particular risk adjuster on the anticipated reimbursement levels.

What is risk adjustment?

A risk adjuster is a model that predicts (or explains) an individual's claim cost using detailed historical claim or other data to make the prediction. Typically, the predictor variables are binary condition categories (such as 1 if there is a presence of claim with diabetes diagnoses, and 0 otherwise), but could also be more complex in nature. The model is calibrated on a development data set, and the resulting model cost predictions are scaled to the population average cost, resulting in an average “risk score” of 1.0 for that population. Figure 1 shows an illustrative table of risk score buildup for two sample members with different observed condition profiles.

FIGURE 1: RISK SCORE BUILDUP FOR TWO SAMPLE MEMBERS

CONDITION (MODEL PREDICTOR)	JOHN SMITH, 35, MALE	ANNA JONES 24, FEMALE
AGE-GENDER COMPONENT	0.25	0.27
COPD	0.70	
COMPLETED PREGNANCY		2.50
HYPERTENSION		0.56
FRACTURE	0.43	
TOTAL RISK SCORE	1.38	3.33

Risk adjustment is the process of using members' risk scores to account for morbidity differences in some analysis or payment model.

ALTERNATIVE REIMBURSEMENT ARRANGEMENTS

Bundled payment arrangements provide a single payment to be shared by a group of providers for a range of needed services. Rather than paying each provider separately, a group of providers work collaboratively to provide a more holistic level of care and share payment for the bundled package of services. This is meant to increase care management and control costs by reducing unnecessary utilization among collaborating providers.

Capitation arrangements work similarly. A capitation arrangement generally involves a health plan paying a provider a flat fee amount PMPM to provide the needed care for a given patient over a given period of time. Typically, PMPM amounts would vary by member and/or product characteristics such as age, gender, or plan purchased, among others. In this arrangement, both the service frequency and severity risks are transferred from an insurer to the provider (usually subject to some limits or stop loss on extreme outliers). Hence, the provider has an incentive to control utilization by avoiding the unnecessary services, to ensure that the agreed upon capitation will cover the cost of care being provided for people of many health levels.

Finally, **risk-sharing arrangements** are those that engage both the insurer and the providers in an arrangement in which profits can be shared between the two if they deliver care below the amount budgeted. In simplified terms, this is how an accountable care organization (ACO), such as in the Medicare Shared Savings Program (MSSP), is structured. This allows for the ACO to potentially share some achieved savings with Medicare. Risk-sharing arrangements can be developed in ways that allow providers or provider groups to share only in the potential profits, or also take on some of the downside risk that would result in financial risk on their end should achieved care come in at a higher cost than budgeted.

Why risk adjustment?

There are a number of alternative reimbursement arrangements in the industry today. Whether the arrangement involves bundled payments, capitation, or risk sharing, the goal of the arrangement is to provide appropriate care to the patient while adequately compensating providers through proper incentives.

In order to provide a financial benefit for both parties, a fair and appropriate rate must be contracted. This statement raises a number of questions. What is the appropriate payment associated with this bundle of services? What capitation rate schedule should be negotiated with this provider, given the patient panel? What is the benchmark to determine whether savings were achieved in a risk-sharing arrangement? The answer to all of these questions is that it depends. Out of 20 different providers that are being contracted for the same set of services, the contracted rate that is fair and that will not result in over- or underpayment could (and should) be different for each one, which is due to the unique characteristics of each particular patient panel.

Beyond the obvious differences in the demographic composition of patient panels, there are undoubtedly morbidity differences as well. This is where risk adjustment plays a key role in providing a mechanism for quantifying both of these differences in a transparent and fair manner. This enables the insurer to cede a reasonable level of risk to the providers, such that the providers can be successful at managing care and maintaining healthy revenue.

But which one?

Not all risk adjusters are created equal. There are multiple models available on the market and they vary in their predictive abilities, the populations they are calibrated to assess, and the time periods for which analyses can be conducted. It is no surprise that the results of any risk-adjustment analysis will be more reliable using a model with stronger predictive power. In large part, the predictive power will be driven by the algorithms underlying the model, but consideration should also be given to the model's intended use. For provider payment specifically, it is critical to ensure that the variables used for risk score development are resistant to manipulation by providers and do not create perverse incentives. Examples of potentially problematic variables include incurred cost in a prior period, procedures, or diagnostic testing, because these items could lead to model exploitation and distort true morbidity levels.

Arrangements should also specify whether risk adjustment will be applied to actual experience at the end of a contract period (a concurrent analysis), and result in a retrospective adjustment to prior payments to account for the risk level

actually encountered, or if the rate will be set prospectively, using current experience to project the appropriate rate for the next contract period. Concurrent risk adjustment is far more accurate than prospective because it seeks to explain what already happened rather than predict what will happen. However, concurrent models can introduce uncertainty during the payment year as to what the retrospective settlement may be. This uncertainty can create challenges for insurers and providers in their budgeting and financial reporting processes. Additionally, a prospective approach should exclude the use of prior cost levels to project future risk levels in order to avoid incentivizing activities that would artificially inflate costs and result in exaggerated prospective risk scores.

Beyond ensuring that the model used is a strong and accurate predictor, it is also important to choose a risk adjuster that will most closely model results for the population in question or the payment arrangement in place. Risk-adjustment models should ideally be calibrated for a population reasonably similar to the one being analyzed. For instance, a model calibrated to a commercial population will not generally be appropriate for risk-adjusting a population of Medicare enrollees, and vice versa. Broad population categories such as these have different morbidity profiles, and risk adjusters should target and be calibrated to capture these nuances, or at least a study should be done to check if a model is performing adequately if it is used on a population that differs significantly from the one used in calibration.

Similarly, many different types of payment arrangements can be developed between a health plan and provider group. It could be that only the professional component of a patient's care is to be capitated. In this instance, a risk score that represents the full spectrum of healthcare services (facility, professional, pharmaceutical) would not be the best indicator of the risk level that applies to this particular payment arrangement. In this case, it would be important to use a risk adjuster that can produce a risk score for the subset of services in question. For instance, the Milliman Advanced Risk Adjusters™ (MARA™) model produces component risk scores for facility services (inpatient and outpatient), emergency room services, and professional, prescription drugs, and other medical service categories, and that model might be most appropriate in this situation.

Example

Let's consider a scenario where a health plan is looking to set up a capitation arrangement with three different provider groups. Each provider group is responsible for the care of a portion of the health plan's members and the health plan knows that the average allowed cost of that care across its entire membership base is \$520 PMPM. At first glance, it may seem as though each provider group should be promised \$520 PMPM to provide the care for its patients. However, that arrangement ignores the risk profile associated with the member panel receiving care from each provider group.

At the end of the contract year, the average risk scores of the members served by each provider group can be calculated. Provider A has a member panel with an average concurrent risk score of 1.13, Provider B has a member panel with an average risk score of 0.71, and Provider C has a member panel with an average risk score of 1.51. These risk scores represent the relative morbidity levels of each patient panel and the associated resource use. Because lower risk scores indicate lower expected cost levels, Provider B will have a much better chance of achieving costs under the \$520 rate than will Provider A or Provider C. Provider C in particular will struggle to achieve this cost level.

The table in Figure 2 presents the development of risk-adjusted capitation rates for this example described above. The "Expected PMPM Paid Costs" row shows the adjustment of the \$520 average by each provider's average patient panel risk score. This calculation shows that a more equitable arrangement would be to develop three separate contracting arrangements, paying Provider A \$588 PMPM, Provider B \$369 PMPM, and Provider C \$785 PMPM.

The risk-adjusted payment arrangement system also allows for a straightforward way of identifying whether or not providers are efficiently delivering care. If the actual cost levels achieved by each of the three providers were in line with the actual costs shown in the example, the health plan could easily identify that Provider A, while delivering care for perhaps \$566 PMPM (above the average for the whole member population), is actually performing more efficiently than expected, given the relative risk level of the patients in that panel.

FIGURE 2: PROVIDER EFFICIENCY EXAMPLE

	TOTAL POPULATION	PROVIDER A	PROVIDER B	PROVIDER C
CONCURRENT MARA RISK SCORE	1.00	1.13	0.71	1.51
ACTUAL PMPM PAID COSTS	\$520	\$566	\$403	\$823
EXPECTED PMPM PAID COSTS (RISK SCORE X AVERAGE COST)	\$520	\$588 = 1.13 X 520	\$369 = 0.71 X 520	\$785 = 1.51 X 520
EFFICIENCY SCORE (ACTUAL / EXPECTED COST)	1.00	0.96 = \$566 / \$588	1.09 = \$403 / \$369	1.05 = \$823 / \$785

Of course, in practice it is important to consider the volume of data available for each provider before drawing conclusions about efficiency. For instance, if a provider had a relatively small panel, the measured outcomes will be subject to more random variation from year to year, making the efficiency measured in any particular period less certain.

With the push for increased care quality and collaboration between insurers and provider groups on the rise, alternatives to the traditional fee-for-service reimbursement are inevitable. While fee-for-service arrangements are simple and comfortable, alternative arrangements like bundling, capitation, and risk sharing allow for a much higher level of customization and intricacy in contracting. As demonstrated above, incorporating risk adjustment in the contracting process is a must to ensure that the arrangement is economically feasible for both parties.

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