

Period of Adjustment

Medicare begins a new program of risk adjustments to try to save the Medicare+Choice program.

Will it work?

By Rebecca Owen

With all the hoopla about adding prescription drug coverage to Medicare consuming public attention, a central question remains: How will we fulfill Medicare's current promise to provide comprehensive medical coverage to retirees and safeguard their interests when they purchase supplementary insurance?

Medicare and managed care are a good match. The concept of lifetime care emphasizing prevention and health maintenance fits with the longer life spans expected of current and future generations of retirees. But high medical costs, and difficulties with matching payments to the cost of services delivered, are playing havoc with the Medicare managed care world. This year, Medicare attempts to level the playing field with a sophisticated method for calculating capitation payments to plan participants so Medicare beneficiaries can stay with their Medicare+Choice plans.

The Centers for Medicare and Medicaid Services (CMS) contracts with providers and insurers to accept the risk for the health care costs of Medicare beneficiaries in return for a capitated payment. These Medicare+Choice contractors charge Medicare recipients a premium for all Medicare covered services, such as physician visits and hospital stays, as well as additional services such as vision care or prescription drugs. In this way, they provide both Medicare and supplemental coverage, with the coinsurance being replaced by nominal copayments for outpatient services.

Historically, the capitation payment depended primarily on geography and demographics, although CMS paid additional amounts for some conditions. If a member has end-stage renal disease, is institutionalized, is in hospice care, or has congestive heart failure, CMS will make additional payments to reflect the unquestioned higher costs of care for these conditions. The capitated payment from CMS is increased each year by about 2 percent (more in some rural counties), far below the cost trend experienced by Medicare+Choice providers and other third-party payers.

Medicare+Choice plans began to pull out of markets where the CMS reimbursement trend fell too far behind the medical cost trend. In July 2002, about 5 million members were enrolled in the Medicare+Choice program, down from more than 6 million at the end of 2000. Those plans that stayed in the program trimmed benefits and increased premiums or reduced their service areas. Some changes were needed to keep the managed care part of Medicare as a significant

method for delivering integrated health services to an aging population.

As part of the reform of the Medicare program—in the Balanced Budget Act (BBA) of 1997—the capitation payments began to reflect a measure of health risk assessment based on the characteristics of members who had an inpatient stay. The Benefits Improvement Act of 2000 (BIPA) extends the measure to include ambulatory encounters beginning in January of 2004. The new proposed reimbursement method is called the 61-Disease model and it has surprising differences from the previous payment methods. It's a type of risk adjuster.

The idea of a risk adjuster is that no plan should be penalized for attracting a less healthy population. In fact, plans that care well for chronically ill members should be rewarded for their diligence. Payments based on average costs will always overpay the capitation for healthy members and underpay for the sickest, making it a sensible business plan to attract the healthier segments of the population.

If the Medicare population is divided into quintiles by cost, demographically based payments are more than twice the average cost for the least expensive quintile, while for the sickest quintile the reimbursement is less than half the average cost. This makes for an uncomfortable partnership between the prudent business practices of Medicare+Choice plans and the social mission of Medicare (and many of the participating plans). The payment needs to reflect the health characteristics of the members. In other words, the payment needs to be adjusted for the risk the Medicare+Choice plan assumed for any member enrolled.

A risk adjuster is a way to realign the payments to better serve both needs. While risk adjusters don't eliminate this disparity, the most refined are much more balanced, reducing the overpayment in the first quintile to a small fraction over unity and the underpayment in the fifth quintile to about 85 percent. In other words, a goodness-of-fit measure, such as R-squared, increases with the refinement of the model. The original age/gender models have R-squared of about 0.02; more refined models, with reinsurance at \$100,000, are more than 0.2. That's exceptional for something as unpredictable as an individual's medical costs—a stunning improvement.

Risk adjusters are used prospectively to set the future payments to a plan, or concurrently to true up the payments for an experience period. Risk adjusters use diagnosis, site of service, and personal characteristics such as frailty indicators, to determine the expected costs of a person in a future year. Some methods of risk adjustment, such as age and gender, have been in use since the first actuarial tables were developed.

While age/gender adjusters are easy to apply, they have on-

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ly a limited ability to predict what an individual will cost. A healthy 50-year-old male has a different expectation of costs than a man the same age but with Type 1 diabetes and a history of heart disease. Chronic conditions are expensive, and risk adjusters attempt to

use information gleaned from current health care use to find individuals with chronic health costs. For individuals who don't access the health care system, demographic information such as age and gender are the default measures.

Diagnosis-based risk adjusters group together medical conditions with similar expected average future costs of treatment. The risk scores for each category may be additive, or the model may use a hierarchical decision tree to assign an individual to a risk category. The more categories included in the model, the more closely the risk adjuster will fit to the data. And theoretically, it should more closely predict the costs of providing future medical care to the population. Some diagnoses, especially short-term acute conditions, aren't considered predictive and aren't included in most models.

A risk adjuster doesn't eliminate the need for reinsurance; the models work well for chronic medical costs but not catastrophic ones. The fewer risk buckets and data elements, the easier the model is to run and maintain. Because diagnoses drive payments and money encourages cleverness, the models need to be able to resist gaming—when diagnosis codes are chosen only to maximize reimbursement.

Health status risk adjusters focus on the character of the delivery of services. The admitting diagnosis for a hospital stay, for instance, or the presenting diagnosis of a doctor's office visit can predict future consumption.

The location of care is an important facet of risk adjustment. A dialysis patient is costly to care for week after week, whereas a broken arm may be a one-time occurrence, unless the patient has osteoporosis. However, unless the dialysis patient is admitted to a hospital, risk adjusters that follow only inpatient admits won't identify a dialysis patient, whereas risk adjusters that are all-encounter based will be more likely to identify higher-cost cases as the condition reveals itself.

Since the risk adjustment category assigned to a Medicare beneficiary is an annual prospective assignment, early identification is helpful in matching payments to costs.

Combinations of information improve risk adjustment. Pharmaceutical risk adjusters will have trouble distinguishing between an inexpensive patient taking tricyclic antidepressants as a sleep aid and an individual with clinical depression. But a diagnosis on the physician claim record correctly identifies the risk.

The diabetic with heart disease could be exercising, managing his diet, and have a positive outlook. Or he may be nearly

housebound, overweight, and isolated. The more information included in the risk adjuster the better, and the best is a combination of pharmaceutical, inpatient, and outpatient information, as well as results of interviews to determine how well a person is functioning. However, this is a daunting amount of mostly sensitive information and impractical to implement. The kinds of risk adjusters being used now are simpler than those for study purposes.

CMS is using an inpatient risk adjuster now as required in the BBA. The risk-adjusted portion of payment to the plan is adjusted by the risk score of individuals admitted to the hospital in the previous year. The Principal Inpatient Diagnostic Cost Group (PIP-DCG) score currently applies only to 10 percent of the payments; the remaining 90 percent of the payment is determined by the age and gender of the person enrolled in the plan, as well as where the member lives.

Because payments are based on inpatient diagnoses, the PIP-DCG risk adjustment model may encourage earlier hospitalization than might be in the best interest of the patient. CMS never intended an inpatient model to be the permanent risk adjustment payment method. Rather, it should serve as a starting place and evolve as the agency and plans learned to understand and implement risk adjustment. The data burden isn't especially onerous. The R-squared was an improvement over age/gender, and it gave all the participants a chance to come to terms with a new way of looking at capitation methods.

One problem with an inpatient risk adjuster is that the payment for the excess costs of a sick individual may come too late for the plan. Only about 20 percent of Medicare beneficiaries are admitted, whereas 80 percent have some sort of outpatient service. There may be a long period of chronic outpatient costs leading up to the hospital admission that will cost the plan far in excess of the average reimbursement it receives to care for the member.

Since the PIP is a prospective measurement for a particular individual and is fixed for the entire year, the timing of the admission is critical. The last six months of life can be very expensive, and the expenses may not be for institutional costs until the very end. The plan won't receive any additional payment for deceased members who weren't hospitalized in the previous year.

The solution to the lag between the onset of increased cost and the receipt of additional payments is to begin the risk adjustment before an admit occurs. This can be done by measuring prescription drug use, particularly those prescribed as a maintenance for a chronic condition that has either high concurrent medical costs or the strong likelihood of future medical costs. Or it can be done by implementing a risk adjuster that measures outpatient encounters as well.

This solution allows potential high-cost members to be identified sooner and payment allotted appropriately. It requires keeping track of every visit to the doctor and noting why the patient went to the doctor (the presenting or primary diagnoses) and a note of contributing causes (secondary diagnoses). For example, a visit to the physician may be to take care of a sim-

ple lesion on the foot. But if the patient has diabetes mellitus, and if the foot doesn't heal, the prospect of amputation looms.

Imagine the upkeep of such a complete data collection and you can see that CMS has a predicament. On the one hand, the need for accuracy argues for a model with all diagnoses, all sites of treatment, and some form of functional status measure. On the other, the cost of data collection, integrity, verification, storage, and analysis is extremely high. One Medicare+Choice plan estimated it would spend \$2.5 million annually on additional staff to collect data for a model that included more than six conditions.

Outpatient data collection is especially difficult for staff model HMOs. Staff model HMOs don't have the billing mechanisms that were perfected by fee-for-service providers since they pay salaries and receive capitation. But the data integrity issues loom large for even the most data-savvy plans.

CMS compromised. The model it has chosen uses data from hospital admissions as well as outpatient encounters. The payment a plan will receive for a person with a diagnosis does not depend on the site of service. This means that there is a more complete picture of the health status of members than with an inpatient-only model, but not any adjustments for the different levels of cost for a diagnosis.

The model uses only 3,000 diagnoses (out of more than 10,000 in the ICD-9 CM manual) and only five data elements

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(instead of 50). It produces 61 categories of payment for significant diseases rather than 100 or more, so the analytical and data burden is significantly reduced. Any member without a target diagnosis will generate a de-

mographic capitation payment that is lower than it would be under the current PIP model but higher than under a model with more conditions.

As can be imagined, plans are starting to model the effects of this new model on their payments. When only 10 percent of the payment came from risk adjustment, a little complacency was, if not wise, at least understandable. Now that the schedule is 30 percent of the payment in 2004, grading to a fully risk-adjusted system by 2007, plans are looking closely at how their revenues might change.

Initial results look interesting. Simpler plans with healthy members appear to do better than plans with sick members. This is to be expected. Plans will need to be vigilant about making sure a chronic, permanent diagnosis remains on the beneficiary's file year after year, or there will be no risk-adjusted payment. Plans will need to be wise and walk a fine line between gaming

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and making sure the diagnosis chosen for a given condition is both correct and qualifies for additional payment. Plans with large populations of very expensive chronic conditions, those that correspond to the

two highest quintiles, will be underpaid. Also, plans that won't have a large influx of new Medicare eligibles will need to contend with an aging, sicker population and may find that the increased government reimbursement is worth the additional amount of money needed to track a more complete model.

It's reasonable to expect that over time, risk adjustment methods will become more sophisticated and provide even greater predictive value. In the meanwhile, we can only hope that Medicare beneficiaries receive better treatment in the prevention, care, and management of chronic conditions. It's the promise Medicare is making to those of us who are working toward the golden years of our retirement. ●

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