



Research

Primer: Medicare Risk Adjustment

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EXECUTIVE SUMMARY

Medicare Advantage (Part C or MA) and the Medicare Prescription Drug Program (Part D) share the feature that the government pays privately-run plans a monthly fee to provide benefits to enrollees. In both cases, the base monthly fee is determined according to a well-known formula, but there is also a process for adjusting the fees paid to plans based on the health history and status of the beneficiaries actually enrolled in each particular plan. This process, known as “risk adjustment,” is intended to increase payments for enrollees who will cost more to take care of, and decrease payments for healthier enrollees. This has two related benefits: first, it decreases the risk to each plan of attracting a disproportionate number of relatively unhealthy enrollees, and second, it decreases the incentive for plans to attempt to disproportionately attract healthier enrollees.

The risk adjustment methodology for MA takes into account each patient's previous diagnoses, as well as demographic factors. The system is “prospective”—that is, it uses a patient's diagnoses from one year to calculate a risk adjustment factor used for payments for the following year. These risk scores are calculated by statistical analysis of diagnoses and expenditures for “fee-for-service” (FFS) patients. Because MA plans are paid based on diagnoses and FFS Part B providers are paid based on procedures, FFS patients tend to have fewer documented diagnoses. To better align the programs, a uniform “coding intensity adjustment” factor is applied to reduce each MA patient's risk score before payments are calculated. The basic structure of the risk adjustment process for Part D is the same as for MA. The same diagnoses are used, but instead of using FFS costs, only prescription drug costs are taken into account. In addition, instead of using the entire cost, the risk adjustment includes only those costs for which a Part D plan is liable (that is, copayment and deductibles are excluded). Also, while the MA risk scores are based on non-MA patients, Part D risk scores are based on the prescription claims of Part D enrollees.

In the case of MA's coding intensity adjustment, the incentives that attend a shift from services-based payment to diagnoses-based payment highlight coding discrepancies between FFS and MA managed plan structures. In an attempt to neutralize these discrepancies, Congress, through the Affordable Care Act (ACA), extended across-the-board cuts to MA plan risk factors to align them with FFS risk factors, without any evidence to support this move. A better approach would use information about coding differences between MA and FFS beneficiaries to identify a more appropriate risk adjustment factor that rewards plan efficiencies. Without this important payment evidence as a regulatory guideline to inform a better risk adjustment model, the Department of Health and Human Services (HHS) has set up a counterproductive structure that could very well penalize efficient plans caring for sick patients, and give others a competitive advantage. The agency would be wise to first, 'do no harm', compile the necessary data, and devise a risk adjustment system that accomplishes the important goal of paying appropriately for specific patient populations.

PROGRAM BACKGROUND – MEDICARE ADVANTAGE (MA)

When Medicare was implemented in 1966 it included two main components, "Part A" for hospital costs (funded by a payroll tax), and "Part B" for physician services (initially voluntary, with a subsidized premium). Both were set up using a FFS system, with hospitals ("Part A") and physicians and other professional providers ("Part B") being paid specified fees for each service performed for a Medicare beneficiary. Beneficiaries paid a portion of those fees through deductibles and copayments, as well as a subsidized premium for Part B.

The FFS program continues and is often referred to as "traditional" Medicare. It was—and still is—plagued by rapid spending growth, delivery system fragmentation, and insufficient coverage for beneficiaries due to high co-payments and limitations on benefits. In 1982, Congress provided for an alternative, which gave beneficiaries access to private sector coverage options under what was known as the "Risk Contracting Program" (also called "Part C"). It was renamed as "Medicare+Choice" and modified in 1997, then renamed again as "Medicare Advantage" (MA) and further modified in 2003.^[1]

Under MA, health plans are paid a fixed amount each month for each enrolled Medicare beneficiary, in exchange for providing at least the benefits offered by Parts A and B of "traditional" Medicare. Typically, plans provide additional benefits not offered in the FFS program, as well as lower copayments and deductibles. Often, they have networks of preferred providers that are smaller than the total universe of FFS providers, but some MA plans include providers who do not participate in FFS.

Any Medicare Part B beneficiary may enroll in any MA plan that covers the beneficiary's county of residence, and MA plans must accept all beneficiaries who wish to enroll. Each year, MA plans submit "bids" specifying their additional benefits, cost-sharing rules, provider networks, and premium for each service area in which they will accept enrollees. The Centers for Medicare and Medicaid Services (CMS) calculates—and publishes—a "benchmark" monthly rate for each county in the United States, using a formula specified by law and linked to average FFS spending on non-MA beneficiaries in that county.^[2] Beneficiaries pay their regular Part B premium, plus any difference between their MA plan's premium and their county benchmark.^[3] Plans can also receive "bonuses" based on CMS evaluations of plan quality.^[4] MA plans compete for enrollees by offering lower cost-sharing than FFS Medicare, additional benefits, or both.

It would be natural to expect plan sponsors to try to structure their plans and marketing strategies to disproportionately attract more-healthy enrollees, in order to reduce their costs, and perhaps to discourage less-healthy enrollees for the same reason. In order to reduce plans' incentive to engage in this sort of behavior—and to avoid penalizing those who end up with a relatively less-healthy enrollment pool, CMS applies a "risk adjustment" methodology to adjust payments. That is, instead of simply paying plans the specified benchmark for each enrollee in each county, the payment is actually the benchmark multiplied by a factor that reflects a beneficiary's expected cost based on health history and relevant demographic factors. This methodology is explained below.

PROGRAM BACKGROUND - PRESCRIPTION DRUGS (PART D)

When Medicare was implemented in 1966, it did not include coverage for outpatient prescription drugs. Eventually, a broad consensus developed that with the increased use of pharmaceutical treatment for both acute and chronic conditions, the absence of drug coverage from Medicare represented a significant shortcoming in the program. The result was the establishment of Medicare Part D as part of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), to be implemented starting in 2006.

Part D was designed such that private plans would offer drug coverage to Medicare beneficiaries subject to minimum benefit requirements while still allowing substantial flexibility in terms of cost-sharing structure and the ability to offer enhanced features. Plan sponsors would submit bids to CMS each year based on their expected costs for providing the benefit, and then a national average of submitted bids would be used to determine the amount of the government subsidy (74.5 percent of the national average bid) as well as the monthly premium paid by beneficiaries (the actual bid minus the government subsidy). With

beneficiaries offered a choice among plans, the bidding process would allow plans to compete for enrollment based on benefit offerings and premium.

As with MA, one might expect that insurers might try to structure their plans and marketing strategies to disproportionately attract more-healthy enrollees, in order to reduce their costs. And as with MA, CMS applies a “risk adjustment” methodology to adjust payments to mitigate this problem. That is, instead of simply paying plans the national average bid for each enrollee, the payment is actually that amount multiplied by a factor that reflects a beneficiary's expected prescription drug cost based on health history and relevant demographic factors. While the basic approach is the same as for MA, the adjustment factors for Part D naturally take into account outpatient pharmaceutical costs rather than medical and hospital costs.

PRINCIPLES OF RISK ADJUSTMENT

The basic principles of risk adjustment are the same, whether applied to the MA program, the Part D program, or some other similar system. While the average cost of treating patients across the over the course of a year is in theory simple to calculate, the average over the entire population is not a particularly accurate estimate of the cost of treating any particular patient. Furthermore, when patients choose among plans with different characteristics to best suit their individual circumstances, it is quite likely that the average cost of patients in a particular plan will not be the same as the average costs over the entire population.

Thus, in the context of MA and Part D, it would be inappropriate to pay plans based on population averages without risk adjustment. Doing so would penalize plans that do a good job taking care of—and therefore disproportionately attract—patients with expensive chronic conditions, or higher probabilities of developing expensive acute diseases.

Neglecting risk adjustment would also encourage plans to find ways of attracting healthier patient pools and discouraging sicker patients from enrolling. If risk adjustment works as intended, then plans will not suffer from enrolling the patients who need them the most.

RISK ADJUSTMENT IN THE MEDICARE ADVANTAGE PROGRAM

Prior to 2000, risk adjustment for MA plans was limited to “demographic factors” such as age, gender, and residence location.^[5] From 2003 to 2007, a new system was phased in that takes into account demographic factors, and each patient's previous diagnosis codes. The system is “prospective”—that is, it uses a patient's diagnoses from the past year to

calculate a risk adjustment factor which is used for payments for the following year. Diagnosis codes are from the International Classification of Diseases, 9th edition (ICD-9), published by the World Health Organization.[\[6\]](#) Several thousand diagnoses are grouped into 79 Hierarchical Condition Categories (HCCs). Each HCC is assigned a risk score that reflects its relative contribution to health care expenditures, after accounting for age, gender, and residence. These risk scores are calculated by statistical analysis of expenditures for FFS patients in one year, using their diagnoses, condition categories and demographic factors for the previous year. This produces an estimate of the amount by which a given condition category known in one year can be expected to increase expenditures on a particular patient in the following year.[\[7\]](#)

The risk scores are calculated separately for Medicare beneficiaries in different broad categories. The largest categories are for those living in the “community,” those living in institutions,[\[8\]](#) and new enrollees. There are also separate risk score calculations for beneficiaries with end-stage renal disease (ESRD).

Because the scores are supposed to reflect relative risk, the model is calibrated to ensure that the average risk score across beneficiaries in each subpopulation is 1.0. Because costs change over time—and do not generally change uniformly for different conditions—the model is recalibrated each year. This can cause an individual beneficiary's risk score to change, even if his or her diagnoses are the same.

It is worth noting that the risk scores are based on costs (i.e., claims paid) in the FFS system, even though those scores are used to adjust payments for patients in MA. The plans are not required to use the FFS payment rates or structures; indeed, one of the reasons the MA plans can offer additional benefits is that they can make arrangements with providers that are completely different from the FFS system. The result is the paradoxical fact that MA risk scores are based on the costs of treating those patients who are *not* enrolled in MA.

RISK ADJUSTMENT IN THE MEDICARE PRESCRIPTION DRUG PROGRAM

The basic structure of the risk adjustment process for Part D is the same as for MA. The same diagnoses are used, but the category groupings and the costs are necessarily different. Instead of using FFS costs, only prescription drug costs are taken into account. In addition, instead of using the entire cost, the risk adjustment includes only those costs for which a Part D plan is liable (that is, copayment and deductibles are excluded). This makes it a “plan liability” risk model, rather than a “drug costs” model as such.

In general, the Part D model will produce different risk scores than the MA model for the same beneficiary since a given set of diagnoses will generally have a different impact on outpatient prescription drug costs than on physician and hospital costs.

Also, while the MA risk scores are based on non-MA patients, Part D risk scores are based on the prescription claims of Part D enrollees. Part D plans are required to report detailed data on beneficiaries' prescription claims, including the plans' cost of filling those prescriptions. CMS is able to match that data with diagnosis records for those same beneficiaries, obtained from Part A and Part B claims.

RISK ADJUSTMENT CHALLENGES: CODING ADJUSTMENT

As noted above, the MA risk model is based on diagnoses and expenditures for FFS patients. MA payments, on the other hand, are adjusted based on that risk model applied to the diagnoses of MA enrollees. It would be neither practical nor desirable to base the risk model on expenditures of MA plans to care for MA enrollees.

One of the features of MA is that plans have an incentive to find efficient ways to care for their patients; that includes finding ways to care for them at lower costs. If MA plans received lower payments for treating patients at lower costs, this would, in effect, be penalizing them for doing their job well. If MA plans received higher payments for treating patients at higher costs, this would be rewarding them for doing their job poorly. More to the point, it would give plans an incentive to artificially increase costs in order to obtain higher payments. It should be clear, therefore, that MA plans should be paid based on the health status of patients who enroll, rather than on the costs they incur treating those patients.

However, there is an additional problem that arises from using FFS expenditure data to calibrate MA payments. Physicians or other Part B providers treating FFS patients are paid based on the specific services they provide to patients. They are not paid for the health status, or diagnoses, of the patient, and have no incentive to record *every* diagnosis a patient has; it is sufficient to include only those diagnoses necessary to justify the services provided.^[9]

On the other hand, MA plans are specifically paid based on their patients' diagnoses. Therefore, there is an incentive to document every diagnosis. Although payments are not changed immediately for new diagnoses, the patient might stay with the same MA plan the following year, and more diagnoses would result in a higher risk score and therefore a higher payment.

The result is, even for patients with exactly the same actual diagnoses, a patient in an MA plan is likely to have more *documented* diagnoses. Because risk scores are necessarily based on documented diagnoses, MA patients will tend to have higher risk scores than identical patients in the FFS program. Because the FFS program is older and more “traditional,” the phenomenon is commonly referred to as “MA up-coding.” Conceptually, however, it is more accurate to think of it as “down-coding,” since it more likely results from a lack of documentation for existing diagnoses of FFS patients than from spurious diagnoses of MA patients.

This phenomenon does not reflect any dishonesty on the part of providers or MA plans. An FFS Part B provider who is paid on the basis of services performed has an incentive to fully document all services performed, but not necessarily all diagnoses a patient has; an MA plan paid on the basis of diagnoses has an incentive to fully document all diagnoses, but not necessarily all services performed.

CMS dealt with the “up-coding” issue by applying a uniform “coding intensity adjustment” factor to all risk scores. In 2010, the adjustment was 3.41 percent, meaning that all MA enrollee risk scores were reduced by 3.41 percent before being used to calculate payments.

This is a brute-force approach that does not, for example, take into account that over- and under-diagnosis might be more prevalent in some disease categories than others; or even in some demographic categories than others. For example, just as FFS utilization varies across regions, coding intensity differentials might vary geographically as well. It is likely, for example, that the coding intensity difference is smaller in regions where FFS utilization is higher. Also, because hospitals (Part A providers) are paid in part on the basis of diagnoses, it is likely that there is less “up-coding” for diseases that often require hospital care than for diseases that are primarily treated on an outpatient basis under Part B.

COMPLICATIONS IN THE ACA

The ACA imposed an even more brute-force adjustment for future years, by requiring that the MA coding adjustment factor be increased by at least 1.3 percentage points in 2014, and by at least an additional 0.25 percentage points in each subsequent year until 2018, and remain no less than 5.7 percent in 2019 and thereafter.^[10] This schedule is not based on any data demonstrating that up-coding will increase at that rate in future years.

In 2014, CMS changed the HCC categorization; combining, splitting, and changing categories. The net effect was that average risk scores were lowered. CMS states that some HCC changes were made to “address MA coding intensity.” They also proposed using an across-the-board adjustment factor to prevent the change in average risk scores from

reducing average MA plan payments in that year. The Medicare Payment Advisory Commission (MedPAC), in official comments, noted the presence of the existing brute-force coding intensity adjustment in the ACA and argued that the risk adjustment model should not be used for coding intensity adjustment as well.

Furthermore, the law now specifies that these coding adjustment factors be used “until the Secretary implements risk adjustment using Medicare Advantage diagnostic, cost, and use data.” As noted above, implementing MA risk adjustment using MA cost and use data is counterproductive to the goals of the MA program, and is likely to result in penalizing efficient plans, rewarding inefficient plans, and providing incentives for MA plans to increase costs.

A BETTER APPROACH

A solution would be to actually measure the differences in coding intensity. If this is not possible for the entire Medicare population, it is at least possible to measure differences in coding for Medicare beneficiaries who move in or out of the MA program, by comparing their diagnoses in consecutive years. This would not be a perfect solution, since changing diagnoses might motivate someone to move in or out of an MA plan. One way to check this would be to examine the differences in coding intensity changes between people who switch from MA to FFS because their MA plan exited their area, compared to those who switch from MA to FFS voluntarily, without any significant change in their MA plan.

While this approach would not be perfect, it would certainly be better than a brute-force multiplier applied across all diagnoses and all demographics based on a legislative schedule rather than any knowable difference in actual coding intensity. It would also be better than the proposed alternative of penalizing efficient plans, rewarding inefficient plans, and providing incentives for MA plans to increase costs.

[1] For more background on the Medicare Advantage program, see Robert A. Book and James C. Capretta, “Reductions in Medicare Advantage Payments: The Impact on Seniors by Region,” Heritage Foundation Backgrounder No. 2464, September 14, 2010, pp. 2-3, at <http://report.heritage.org/bg2464>.