

# Risk adjustment programs for healthcare purchasers offering carrier or benefit plan choice

## What needs to be considered?

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When plan sponsors – employer groups, multiemployer trusts, or associations – want to offer their participants choice in health coverage through either multiple carrier or benefit plan options, there will be an inherent selection risk and therefore additional cost that needs to be considered. Risk adjustment can be used to quantify and reallocate this cost.

When employees have a choice among multiple health benefit options, this often results in an increase in the overall cost of providing health insurance (compared to offering only a single plan). This “selection risk” occurs because individuals make coverage selections that account for their underlying health status. If healthcare purchasers do not compensate carriers or plans for this selection risk, then carriers may either choose not to offer coverage or may limit the number or types of plan options that they are willing to offer.

**Health insurance** offers a mechanism for lower-cost members to support the expenses of higher-cost members.

**Risk adjustment** offers a mechanism for plans with lower-cost members to support the expenses of plans with higher-cost members.

One way to mitigate selection risk is through the use of risk adjustment. Risk adjustment programs include two main components:

1. A risk adjustment model for measuring the underlying morbidity risk (expected cost) of covered lives.
2. A financial transfer mechanism (other than higher premiums) for subsidizing the cost of claims for members with higher risk levels.

In practice, there are numerous ways to establish a risk adjustment program. We will explore some of the specifics throughout this white paper. However, it is important to keep in mind the following guiding principles:

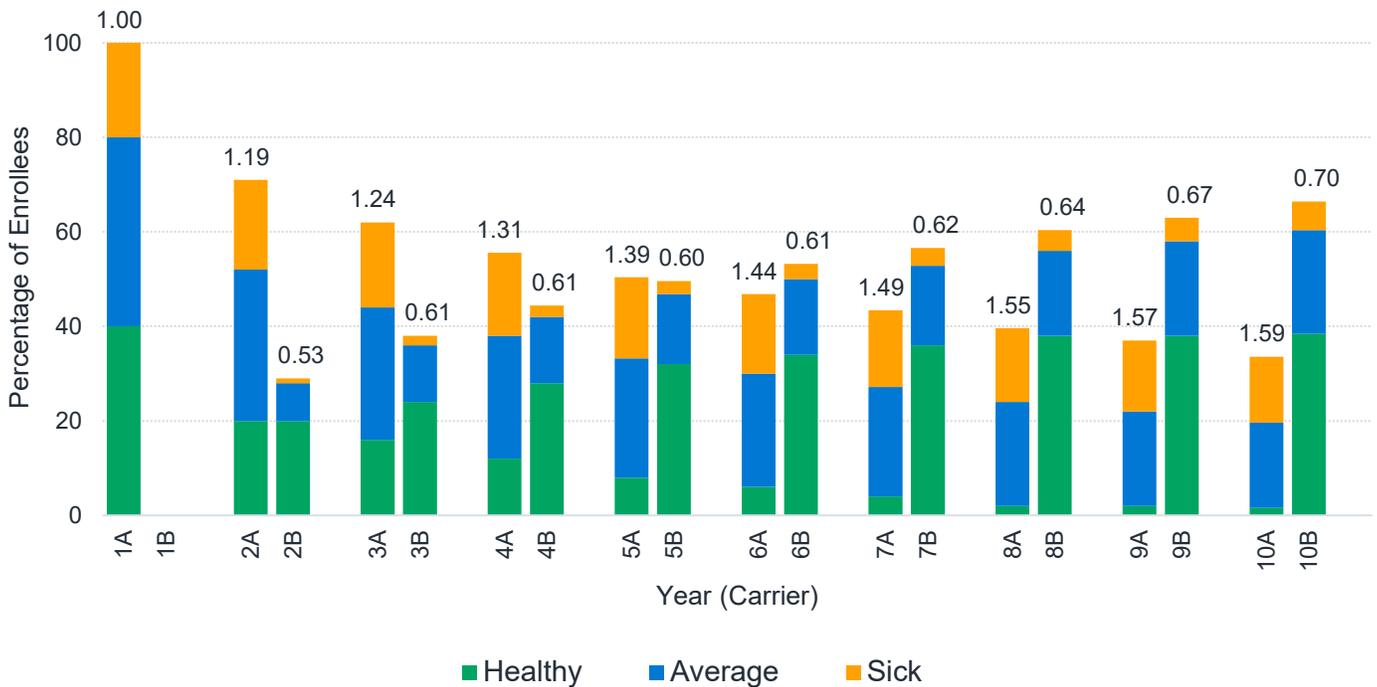
- Establishing a successful risk adjustment program requires having clearly defined goals and selecting an approach that will most closely align with those goals.
- There are already many existing risk adjustment models for measuring the morbidity risk (expected cost) of a given population and financial transfer mechanisms using these risk scores. Plan sponsors may want to tailor existing tools and models to their circumstances, but they probably do not need to start from scratch.
- Risk adjustment allows the plan sponsor to present different premiums to its members than it pays to its plans. The premiums paid to a plan must align with the risk profile of the expected enrollees.
- Complete and accurate data are paramount in any risk adjustment program. Plan sponsors should be prepared to work closely with their partners on a robust data collection and analysis plan. In addition, plan sponsors will need to have processes for measuring, calculating, and reconciling risk adjusted payments, as well as a mechanism for transferring funds.

## Why adjust for selection risk?

Suppose a plan sponsor wants to offer participants two options, a preferred provider organization (PPO) plan through Carrier A, and a health maintenance organization (HMO) plan through Carrier B. Aside from the cost differences driven by carrier, network, and plan design among these options, there are also likely to be differences between the characteristics of members that select each of these plan options. In our experience, people who select a PPO plan when offered this choice tend to have a higher risk profile than the people who choose an HMO plan. For example, a higher risk member might be a cancer patient who wants more provider choice and fewer treatment restrictions, or it might be a patient with chronic conditions and well-established provider relationships. This phenomenon, where a person who is more likely to make claims on their policy purchases a less restrictive benefit plan, is called “selection risk.”

The effect of selection risk is not a one-time impact. Each year, members weigh their enrollment options, especially in years with higher rate changes. In our experience, healthy people are more comfortable switching between plans whereas less healthy people tend to stay in the plan they know because they may have an established provider relationship or treatment plan that could be disrupted by switching plans. As a result, both the plan with the higher starting risk profile and the lower starting risk profile will experience a deterioration in their risk profiles over time. Consider the illustration in Figure 1, showing the hypothetical migration over time of healthy (green), average (gray), and high-risk (orange) people from a single Carrier A (PPO) offering in year 1 to a two-carrier offering that adds Carrier B (HMO) for years 2 thru 10.

FIGURE 1: ILLUSTRATION OF HOW SELECTION DETERIORATES THE RELATIVE RISK FOR BOTH CARRIERS



Note: The height of the bars shows how many enrollees choose each plan each year. The values shown over each bar in the chart reflect the average relative risk score of the members enrolled with each carrier each year. For example, in year 4, Carrier A has an average relative risk score of 1.31 while Carrier B has an average relative risk score of 0.61. The total risk score for the group averages to 1.00 each year.

Figure 1 shows that when a second plan is introduced the majority of the members who switch plans are the healthy members moving to the lower cost HMO plan. Over time as this enrollment shift continues, Carrier A is left with most of its original high-risk members and a smaller share of the healthy and average risk members. Concentrating these populations within Carrier A will increase the average relative risk score.

Furthermore, over additional years of selection the average relative risk score for Carrier B can also increase, as more of the average and sick members migrate. Without a risk adjustment program, these migration patterns will normally cause a higher increase in Carrier A’s rates relative to Carrier B’s rates. With no mechanism to adjust for the transfer of risk between carriers, when the selection risk is allowed to flow through the premiums,

the result is increasingly worse risks for both Carrier A and Carrier B (relative to the initial year when both options are offered without risk adjustment) and therefore higher premium trends for the healthcare purchaser for both carriers.

### **ENCOURAGE CONTINUED CARRIER PARTICIPATION**

If Carrier A (the PPO) is permitted to charge premiums that fully reflect its actual best estimate for the cost of covering enrollees who select the PPO plan, then this cost will include a best estimate of the morbidity of the PPO enrollees. Including this risk-based factor in the underlying premiums, as illustrated above, can naturally result in a further deterioration of the PPO risk pool over time. If enrollees with higher-than-expected risk opt into the PPO plan, or if natural market volatility increases PPO premiums disproportionate to the HMO plan in a given year, then even more enrollees may shift to the HMO plan in a cycle of selection that can become self-perpetuating. This effect is often referred to as a selection spiral. The result of such a spiral could be that Carrier A exits the purchaser's program altogether or sets premiums that are unaffordable and naturally loses more enrollees. An appropriately structured risk adjustment program can mitigate the risk of carriers withdrawing from the purchaser's program.

### **HEALTHY COMPETITION AND CHOICE**

When health plans are separately compensated outside of their premium rates for taking on higher-risk members, they have an incentive to stay in the market and to price their plans competitively. The conceptual basis for risk adjustment programs is that they allow carriers to set prices that reflect the aggregate risk of the purchaser's entire covered population, not just those participants who enroll in a particular plan or carrier. This allows members more opportunity to choose the coverage that best meets their health and care needs without paying a markup for the cost of selection within a specific plan option.

## **Existing programs**

There are a variety of approaches that can be taken in establishing risk adjustment programs. Below we summarize a few of the existing programs in governmental markets and among public entities. One important note is that the Affordable Care Act (ACA), Medicare Advantage, and Medicaid all use different risk models that are generally designed for their underlying enrollee populations.

### **AFFORDABLE CARE ACT**

The ACA (1) required that carriers issue coverage to any eligible participant in the state where the carrier operates, and (2) prohibited carriers from rating based on enrollees' preexisting conditions. To make these requirements financially viable for carriers, the law also established a risk adjustment program. The ACA risk adjustment program uses a concurrent risk model to measure a member's risk level during the year of coverage

based on the following factors: age and sex, documented medical conditions, prescription drug utilization, and plan design (metal level). The transfer mechanism of this model involves zero-sum payments and receipts among carriers in each state risk pool (with separate individual and small group risk pools), at no cost to the state or federal government outside of program administration.

### **MEDICARE ADVANTAGE**

The Medicare Advantage risk adjustment program uses a prospective risk model to compensate carriers according to the risk level, as measured in the prior year, of currently covered lives. This program has different risk models for different cohorts (e.g., new enrollees, community enrollees, enrollees who are dually eligible for Medicare and Medicaid, etc.). The Medicare Advantage program does not use a zero-sum transfer mechanism. Instead, each incrementally documented condition from the prior year results in more federal dollars paid to carriers during the year of coverage. For a member switching plans during open enrollment, the risk payment for that member will shift to the new carrier.

### **MEDICAID**

Each state establishes its own risk adjustment method for enrollees in the Medicaid program. These programs have adjusted over time to meet the needs of each state's program goals, so there is not a one-size-fits-all approach to this market. Some states apply a prospective risk model to a limited subset of Medicaid cohorts or apply other criteria for inclusion in the risk adjustment program. Other states apply a concurrent risk model to nearly all Medicaid cohorts with carve-out programs for newborns. For those Medicaid programs applying risk adjustment, most involve a transfer mechanism that is zero-sum, or budget-neutral to the state risk pool.

### **OTHER PUBLIC ENTITIES AND EMPLOYERS**

Many public entities and commercial purchasers have developed their own risk adjustment programs based on their unique needs and populations.

Examples of risk adjustment programs used by state employee health plans include:

- Using prospective risk scores to risk-adjust the published premiums.
- Using prospective risk scores to risk-adjust the published premiums and concurrent risk scores for a year-end settlement adjustment.
- Setting published premiums in a manner that would reduce the effects of selection risk. For example, one state sets its published premiums the same for different carriers with higher member premiums for richer benefits or broader networks. It is not clear if this is done through a formal risk

adjustment mechanism or as a general rate-setting philosophy.

- Using a single carrier for all plans offered, and having the carrier set rates based on plan value rather than reflect the selection risk for enrollees of each individual plan.

### **SINGLE CARRIER SELECTION RISK MITIGATION**

Even if an employer offers plan choice through a single carrier, the rates for each plan can be set to include intentional subsidization. Similar to the process described above, a carrier offering both an HMO and a PPO plan may set the HMO premiums higher and the PPO premiums lower than the underlying plan values to stabilize selection. By ensuring that the total premium collected is sufficient to cover the costs of administering benefits, the single carrier is trying to maintain stable selection and pricing for each plan. This type of pricing adjustment may not even be evident to the purchaser but is a risk mitigation strategy that carriers may use during the development of plan-specific rates.

## **Defining an approach**

The list below describes several key considerations when designing or managing a risk adjustment program. The circumstances for each purchaser, employer, or risk pool will vary considerably, so a risk adjustment program should reflect the specific goals and capabilities of each entity as well as its carrier and provider partners. Figure 2 summarizes these considerations.

### **FINANCIAL MECHANISM**

All risk adjustment programs are intended to compensate carriers for the additional cost associated with covering enrollees who are higher risk than average. There are two primary ways that this compensation can occur. One approach is for the plan or program sponsor to increase revenue to a carrier for increased risk. This is what occurs in the Medicare Advantage market; the federal government adjusts its monthly premium payments to Medicare Advantage carriers based on the risk scores of their covered enrollees. In this program, higher risk scores always correspond to higher premium payments, using a predetermined formula. Likewise, lower risk scores correspond to lower premium payments. Each carrier's revenue is determined independently of other carriers. This improves the predictability of financial outcomes but may come at a financial cost to the government.

Another option, used by the ACA, is the budget-neutral, or zero-sum approach, where market average risk is determined based on all covered lives in the risk pool. The risk level of each carrier relative to the overall market is then used to transfer funds among carriers at no additional cost to the government. Carriers covering members with higher-than-average risk receive funds from carriers covering members with lower-than-average risk.

The zero-sum model tends to also be used for large employers and public program purchasers, as it does not increase the overall program budget but rather just reallocates the funding to align with each carrier's risk.

### **CALCULATION APPROACH**

There are two primary approaches to timing the measurement of risk associated with each covered member—prospective and concurrent methodologies. A prospective methodology determines each person's risk based on historical data and adjusts each carrier's compensation in a future period using this information. A concurrent methodology ties each carrier's compensation to the risk measured based on experience during the coverage period. Generally, concurrent risk predictions more accurately tie expenses to reimbursement but occur in a retrospective review, whereas prospective models allow for transfers to be calculated during the contract as the risk levels are fairly well understood at the time of plan selection. In our experience, heavily capitated health plans prefer a prospective method because knowing the premium in advance of the plan year is more compatible with the need to pay capitation payments prospectively. Either method can be used, and sometimes both are used (e.g., a purchaser could use a prospective method to risk-adjust its published premiums and a concurrent method to perform a year-end true-up).

### **TIMING OF DATA FOR CALCULATIONS**

Below are three key timeframes that must be considered in establishing a risk adjustment program.

- **Measurement year:** The year in which each person's risk level is determined.
- **Projection year:** The year in which a carrier's payment is impacted by the risk level of its members.
- **Runout:** The length of time beyond the end of the measurement year that is allowed for additional diagnoses or prescription drug claims (for services rendered in the measurement year) to be reflected in the determination of each person's risk level.

The calculation approach will impact the selection of these periods. In a concurrent model, the measurement year and projection year are equal. In a prospective model, the measurement year typically immediately precedes the projection year.

## RISK MODEL AND RISK FACTORS

Many risk models for measuring individual risk already exist and could be used to implement a new risk adjustment program. The building blocks that determine each person's risk within a given model are called risk factors. Some of the most widely used risk factors are age, sex, medical diagnoses, and prescription drug utilization. The Society of Actuaries (SOA) published a study of multiple risk scoring models in 2016.<sup>1</sup> While model calibration has continued to evolve, this is a useful grounding resource for a deeper technical review of some of the major models used in the healthcare industry.<sup>2</sup>

## RISK STRATIFICATION

Risk adjustment programs facilitate subsidization among different groups within a single pool. Stratification is an approach to create smaller pools within the larger population to constrain when these subsidies occur. Geography is one common way that risk adjustment programs are stratified. Because there are often differences in the cost of care by geographic region, many programs limit the financial shifting to occur only among carriers or members living within the same region or otherwise adjust the subsidization between regions using an area factor that accounts for geographic cost differences. By stratifying a program regionally or otherwise, it is possible to prevent the unfair penalization of lower-cost carriers when cost differences relate to factors other than the member's underlying health status.

Some healthcare purchasers opt to apply risk adjustment in layers by segmenting member groups by size so that risk is shared more evenly among smaller groups while larger groups retain more of their own experience. There may also be further layering where groups keep their own risk for claims below a certain threshold and only share risk for claims over the threshold.

## EXPENSES INCLUDED

It is important to consider which expenses to include in a risk adjustment program. For example, it is common for risk pools to contract with multiple health plan carriers but only one pharmacy benefit manager (PBM). If pharmacy benefits are provided by a single administrator, it may be appropriate to exclude those expenses from the risk adjustment financial mechanisms. Even in this scenario, the prescription drug utilization data may still be used to assess a person's risk factors. Additionally, a risk adjustment program may exclude administrative expenses to account for only the risks of differences in claims costs.

<sup>1</sup> SOA (2016). Accuracy of Claims-Based Risk Scoring Models. Retrieved April 10, 2024, from <https://www.soa.org/globalassets/assets/Files/Research/research-2016-accuracy-claims-based-risk-scoring-models.pdf>.

<sup>2</sup> Milliman's proprietary Milliman Advanced Risk Adjusters (MARA) was included in the SOA study and is an example of a model that can be used for risk adjustment. See <https://www.milliman.com/en/products/mara>.

## HIGH-COST CLAIMS OR CLAIMANTS

Some risk adjustment programs include special handling of high-cost claims and/or claimants.

For example, the ACA risk model is calibrated excluding a portion of claims in excess of \$1 million.<sup>3</sup> A risk adjustment program should consider interactions with existing risk mitigation programs, such as reinsurance or other risk corridors.

Another method for handling high-cost claims is pooling. Pooling is a type of risk adjustment that enables sharing in the risk of high-cost claimants. Pooling can be used both as a mechanism for reallocating expenses across plans as well as smoothing the effects of high-cost claims over time.

## SOCIAL DETERMINANTS OF HEALTH

Social determinants of health (SDOH) continue to be an area of focus for many governmental entities and risk pools. A person's holistic life circumstances may impact their health status and their likelihood to seek care in a variety of ways. Historically, a lack of complete and accurate individual data related to these social determinants has meant that they are not factored into the major risk adjustment programs in the United States. However, with increased awareness and data collection efforts, it is important to be aware that risk models may shift over time to include new data that may better predict an individual's expected healthcare costs. There has also been a concerted market-wide effort to reduce or remove bias from risk adjustment models to avoid perpetuating disparities.<sup>4</sup>

## Choosing the right moment

Risk adjustment programs fundamentally change the allocation of funds and thus the incentives for providing various coverages within an insurance market. Beginning a new risk adjustment approach will disrupt the status quo and require time and effort to successfully implement. It is important to consider the timing of beginning such a program as well as all the technical components above. If the market is already undergoing other significant changes, it may be prudent to wait. However, waiting too long to implement a risk adjustment program could put the purchaser at risk for lower carrier participation or higher rates in the long run. There are also options for phasing in a risk adjustment program over a period of a few years to reduce the disruption in any given year.

<sup>3</sup> The full text of the relevant 2025 rule is available at <https://www.cms.gov/files/document/cms-9895-f-patient-protection-final.pdf>.

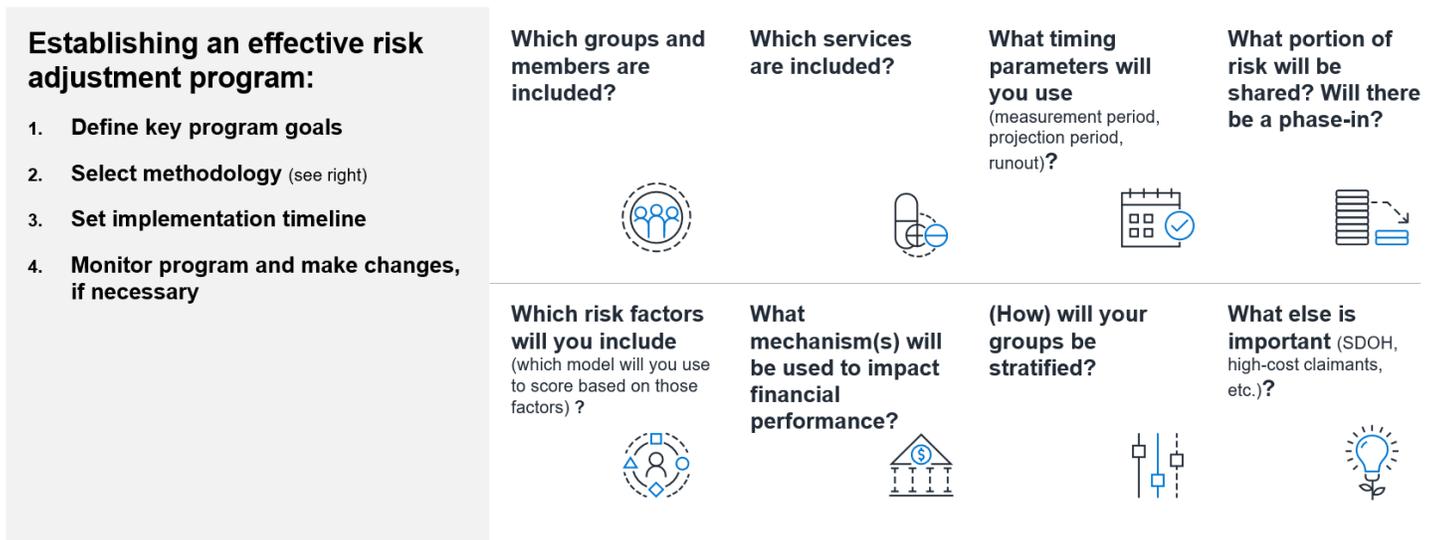
<sup>4</sup> <https://www.milliman.com/en/insight/testing-milliman-advanced-risk-adjuster-models-for-racial-bias-medicare-model-results>

## Program refinements

Risk adjustment programs must be continually monitored and regularly refined. Because the healthcare marketplace adjusts frequently and the amount of available data is increasing, the approach to measuring risks is subject to ongoing changes. A breakthrough technology could significantly change the cost of managing a particular chronic condition;

organizational appetite for complex methodologies might increase as a risk adjustment program matures; or new legislation may significantly change the financial models in the marketplace. Any number of changes could require a shift in a risk adjustment program, so it is important to continuously monitor results against key program goals and adjust as necessary.

FIGURE 2: CONSIDERATIONS WHEN ESTABLISHING A RISK ADJUSTMENT PROGRAM



## How Milliman can help

Risk adjustment programs can help mitigate the risks of selection when offering choice among health plan benefit options. These programs may help to preserve the viability and affordability of enrollee choice in the long term and they are especially important to consider when offering a self-funded option alongside a fully insured option.

Large purchasers may want to consider whether risk adjustment should play a role in their overall benefits management strategies. Each organization may have different goals with regard to offering health benefits and a unique landscape of available carriers and plan options. Milliman consultants have experience helping organizations establish and manage their risk adjustment programs. We can help employers pair their unique goals with the best methodology for risk adjustment at the right time to minimize disruptions to their employee and carrier partners. If you have any questions on the subject of risk adjustment, please contact your Milliman consultant.



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