

## Risk Adjustment and the Impact to Providers

“Risk adjustment is defined as a process by which the health status of a population is measured using health-based risk assignment.” – Todd Gilmer, PhD, Associate Professor, University of California, San Diego.

The primary goal of risk adjustment is to provide appropriate funding to health plans to cover the expenses of their enrollees and to discourage incentives for health plans to selectively enroll healthier members. It is intended to provide an environment where health plans compete on quality and efficiency.

Risk adjustment models were created in the 90’s by academia and funded by CMS as a method to adjust capitated payments to Medicare and Medicaid HMOs. The models are designed to predict future expenditures of enrollees based on diagnosis codes reported on claims and encounters.

The three commonly used risk adjustment models group diagnosis codes by specific criteria and apply an algorithm to calculate risk scores for enrollees. Risk scores can be used to calculate payments to health plans, rebidding of contracts, implementation of case management strategies and research. There are three basic methodologies:

**CDPS: Chronic Illness and Disability Payment Systems** - this is a diagnostic classification system that most State Medicaid Programs use to make capitated payments to Medicaid HMOs for the Disabled and/or TANF (Temporary Assistance to Needy Families) populations. Michigan uses CDPS for the Disabled population only. Characteristics of the model are:

- All diagnosis codes are grouped into 20 major categories of diagnoses, which correspond to the body systems or type of diagnosis
- Most of the major categories are divided into subcategories according to the degree of increased expenditure associated with the diagnoses
- Some diagnosis codes were excluded if they did not have a clear, shared meaning among clinicians – ill-defined, e.g. chest pain or dyspnea. Low cost, high frequency diagnosis codes were excluded because they did not predict a material increase in cost
- Hierarchies are applied on each major category to count only one diagnosis from the category that represents the highest cost. Example: if enrollee had both congestive heart failure and hypertension, only congestive heart failure would be counted in the “Cardiovascular” category
- Multiple categories can be added together, e.g. patient may have a diagnosis in the “Cardiovascular” category and also in the “Diabetes” category
- Age/Sex or population types such as Aged, Blind and Disabled and Families can be applied
- Prospective model is normal (using previous year’s data to estimate expenses in current year) vs. Concurrent model (using current year’s data to estimate expenses in current year)
- Model was used in 1997 and revised 2000 and 2008, adjusted yearly for changes in diagnosis coding
- Prescription drug model created in 2008 in similar format to CDPS, called MRX.

**CMS-HCC: Hierarchical Condition Category** - this model was developed from a mandate in the Balanced Budget Act of 1997 (BBA) to adjust payment of capitation to Medicare HMOs (Part C) based on the health status and demographic characteristics of the enrollees. It is also used in the bidding process for Medicare HMO contracts. Under the BBA, risk adjustment was initially to be based only on inpatient hospital data. CMS used the PIP-DCG (Principal Inpatient Diagnostic Cost Group) model from 2000-2003. In 2004, outpatient hospital and physician data were added and the name changed to the CMS-HCC model. In 2006, a separate risk adjustment model was created for the Medicare Prescription Drug Program (Part D). Characteristics of model are:

- All diagnosis codes organized into 805 diagnostic groups
- Diagnostic Groups clustered into 189 Condition Categories that describe a broader set of similar diseases
- CMS-HCC model influenced by chronic diseases that best predict Medicare expenditures, therefore only 70 out of the 189 HCCs are used to calculate risk
- Hierarchies applied so that only the most severe/high cost diagnosis is counted
- Multiple categories are added together (additive model)
- Demographic Variables impact risk including: Age, Sex, Disabled Status, Original reason for entitlement, Medicaid or low income status
- Disease and Disabled interaction factors are applied when certain coexisting diagnoses increase medical costs more than just adding multiple categories together or when a disease, combined with a disability significantly increase the cost of care
- Frailty factors applied to risk scores for enrollees in Program of All-Inclusive Coverage for the Elderly (PACE) organizations. These factors are based on Activities for Daily Living (ADLs)
- Separate calculations for enrollees in the community, long-term care institutions and new enrollees
- Separate risk model for End Stage Renal Disease (ESRD) enrollees
- Prospective Model – data from previous year predicts cost in current year

**HHS-HCC: Hierarchical Condition Category** – This model was developed as a result of the Affordable Care Act to stabilize premiums for individual and small group commercial health plans offered on and off the Health and Human Services (HHS) health plan exchange. HHS operates the risk adjustment program for states that choose not to operate their own program. This model is based on the CMS-HCC model with significant changes due to differences in types of plans and population of enrollees. Characteristics of model are:

- HHS-HCC model implemented in 2014
- Model is budget neutral where funds are transferred from plans with lower risk enrollees to plans with higher risk enrollees in a state market (also called risk pool)
- HHS-HCC model includes 127 out of the 189 HCCs that best predict expenses and focus on chronic diseases
- Hierarchies applied so that only the most severe/high cost diagnosis is counted
- Multiple categories are added together (additive model)
- Demographic variables impact risk Age/Sex
- Interactions for adult, child and infant related to disease and severity add to risk factor

- Separate calculations depending on plan metal level (Platinum, Gold, Silver, Bronze and Catastrophic). Metal levels reflect the health plan's actuarial value. Actuarial value is the percentage of total average costs for covered benefits that a plan will cover. For example, if a plan has an actuarial value of 70%, on average, you would be responsible for 30% of the costs of all covered benefits.
- Concurrent Model – data from current year predicts cost in current year

**ACG: Ambulatory Care Groups or Adjusted Clinical Groups** were developed with a different approach than the CDPS and HCC models. Diagnosis codes are assigned to 32 Ambulatory Diagnostic Groups (ADG) based on expectations of a condition's effect on enrollee health and resource needs. Likelihood of persistence, disability, reduced life expectancy and need for diagnostic, specialist, therapeutic and hospital care is considered when assigning the ADG. As a result, many ADGs include conditions that appear unrelated but are thought to have similar effects on future resource use. All diagnosis codes are mapped to an ACG/ADG including diagnoses for low cost services or those that describe signs and symptoms (ill-defined). This is often referred to as a Case Mix model and is used for risk adjustment and research.

### **Impact of Risk Adjustment to Providers**

The goal of risk adjustment is to provide funding to health plans to take care of enrollees based on their health conditions. Health plans depend on this funding to operate efficiently on behalf of the enrollees, employers and providers. With adequate funding, health plans can offer many benefits to providers including favorable contract terms, financial incentives, outreach and education and development of programs to improve health outcomes. Providers may also benefit from inclusion in narrow networks and assistance with coding and documentation education from the health plan.

Providers should become familiar with the principals of risk adjustment and the impact it has on the health care system. Because risk adjustment is dependent on diagnosis coding, it is very important that all chronic illnesses are documented each year at a face to face encounter. All diagnosis codes should **be coded to the highest specificity** and all encounters should be submitted to the health plan, even if the provider receives a monthly capitated payment. Become familiar with standard coding principals for your specialty and make sure that all reported diagnosis codes are clearly supported in the medical record to protect from audits and potential fraud.