Key Features of Risk Adjustment Models

Richard Lieberman
Chief Data Scientist
Mile High Healthcare Analytics

Bio for Richard Lieberman

- One of the nation’s leading experts on financial modeling and risk adjustment in the managed care industry
- Combines unique expertise in provider profiling, risk adjustment, case-mix measurement, and provider reimbursement strategies
- Actively involved in the development of risk adjustment systems for nearly 25 years
  - Johns Hopkins ACG Development Team, 1991-2005
  - Implemented the risk-adjusted payment system for Maryland Medicaid

Our Agenda Today

- Explain the various approaches to Medicaid risk adjustment
- Describe how the payments are calculated in contrast to Medicare-Advantage
- Discuss how exchange risk scores become payments
- Preparing for the Initial Validation Audits
Medicaid Risk Adjustment is the Granddaddy!

- Many people believe that risk adjustment started with Medicare-Advantage in 2004
  - MA made a feeble attempt at risk adjustment in 2000 with PIP-DCGs
- Medicaid risk adjustment led the way: Maryland and Minnesota in the late 1990’s and Colorado in 2000
- Commercial risk adjustment began in 2014
  - Incorporating many of the lessons learned from Medicare and Medicaid

Types of Models

- All Medicaid risk adjustment systems but MedicaidRx use claims-based diagnosis codes and age/sex data
- Some models count or include most diagnosis codes for risk assessment while other count primarily high cost and more likely valid and reliable codes
- Logic of aggregation of diagnosis codes into groups is the fundamental difference, but all perform similarly in terms of overall predictive accuracy
- Some apply an additive regression model of conditions with hierarchies – CDPS, DxCGs (Also CMS-HCCs and HHS-HCCs); while others assign individuals to risk categories – ACGs, CRGs, ERGs

Risk Adjustment Tools in Current Use for Medicaid

- The Chronic Illness and Disability Payment System (CDPS) - developed by Richard Kronick at the UC-SD
- Adjusted Clinical Groups (ACGs) - developed by Jonathan Weiner and Barbara Starfield and other researchers at the Johns Hopkins University
- Diagnostic Cost Groups (DxCG) – developed by Arlene Ash and Randall Ellis of Boston University
- Clinical Risk Groups - developed by DRG team at 3M
- MedicaidRx – developed by Richard Kronick and Todd Gilmer at the UC-SD
- Episode Resource Groups (ERGs) – developed by Symmetry, now owned by Optum
36 states currently have risk-bearing contracts with managed care organizations (MCOs).

At least 23 states use a risk adjustment model to adjust payments to these MCOs:
- 13 states use CDPS (or a combined CDPS/MedicaidRx model)
- 4 states use the Johns Hopkins ACG System
- 1 state uses DxCG
- 1 state uses CRGs
- 1 state uses ERGs
- 4 states use MedicaidRx alone (often as a transition strategy)

The way states use risk adjustment is continuously evolving.

Source: Scott Weiner, Quadralytics, LLC

Medicaid Risk Adjustment Models (the Map!)

Model Typology #1
Model Typology #2

Categorial Models

- ACGs (Adjusted Clinical Groups)
- CRGs (Clinical Risk Groups)
- ERGs (Episode Resource Groups)

Sponsors Design their Payment Methods Differently

- Medicare Advantage: Assigns risk scores to individual members and pays for each member individually
  - The higher the risk score, the more money CMS (and the taxpayer) pays out to the health plans
- Medicaid: Most states pay at the plan level with a multi-year lag; others for each member individually
  - Key feature is that a health plan’s risk score is determined by a historical cohort of members
  - Budget neutral to the plan sponsor (State Medicaid program)
- Health Benefit Exchanges: Assigns risk scores to individual members, but uses these scores to reconcile relative risk score at the plan level
  - Also budget neutral

Risk Adjustment Doesn’t Determine the Overall Budget

- Big State Medicaid Budget
- Not So Big Medicaid Budget
Medicaid Risk Adjustment Only Determines the Size of the Slices

Huge distinction with Medicare-Advantage risk adjustment: In MA, risk scores at the individual member level directly determine health plan revenue.

How Medicaid Risk Adjustment Works

"Plan-level" risk scores are then applied to a future population of enrollees in the same risk score strata.

The historical health plan risk score DOES NOT determine the payment to the plan.

The group-level average risk score from the prior period is applied to a different group of enrollees in some future fiscal year.

For example, risk scores determined in 2012 using 2011 claims history will be used to set health plan rates in 2014.

Actuaries typically set future rates by age/sex cell, eligibility category, and geography.

The Historical Health Plan Risk Score

<table>
<thead>
<tr>
<th>Year</th>
<th>Risk Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.95</td>
</tr>
<tr>
<td>2016</td>
<td>0.89</td>
</tr>
</tbody>
</table>
Substantiating Diagnosis Codes in Medicaid

- All of the diagnosis-based Medicaid states rely on encounter data and claims as the source of diagnosis codes
- Risk score augmentation is achieved through the submission of new encounter data records
- Unlike Medicare-Advantage, medical record substantiation is not required
  - If a provider is willing to supply a new claim with a new stream of diagnosis codes, most states will accept this and replace a previously processed encounter record
- We know of no state that has engaged in RADV or IVAS-style audits for Medicaid managed care

Retrospective Medical Record Review

- The review process is substantially the same as Medicare-Advantage
- But, the submission process is radically different
  - New claims must be obtained from providers or providers must be willing to submit new claims that replace existing claims
  - This requires a partnership with providers and the likelihood of offering financial compensation

Affordable Care Act vs. Medicare Risk Adjustment

<table>
<thead>
<tr>
<th>Category</th>
<th>ACA Risk Adjustment</th>
<th>Medicare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Benefits</td>
<td>Benefit tiers based on actuarial value;</td>
<td>Plans provide, at a</td>
</tr>
<tr>
<td></td>
<td>benefit structure varies within tiers</td>
<td>minimum, Medicare benefits</td>
</tr>
<tr>
<td>Plan-level premium</td>
<td>Can vary based on age, geography and</td>
<td>Uniform plan premiums</td>
</tr>
<tr>
<td>s</td>
<td>family size of subscriber unit</td>
<td></td>
</tr>
<tr>
<td>Monetary basis for</td>
<td>Based on premiums seen in market</td>
<td>Standardized bid</td>
</tr>
<tr>
<td>transfers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer of funds</td>
<td>Charges assessed at issuer level; lower</td>
<td>Prospective payment</td>
</tr>
<tr>
<td></td>
<td>risk plans are charged and higher risk</td>
<td>adjustments (up or down)</td>
</tr>
<tr>
<td></td>
<td>issuers make payments after the benefit</td>
<td>to individual standardized bid</td>
</tr>
<tr>
<td></td>
<td>year</td>
<td></td>
</tr>
<tr>
<td>Budget</td>
<td>Budget-neutral</td>
<td>Not budget-neutral</td>
</tr>
</tbody>
</table>
### ACA Risk Adjustment vs. Medicaid Risk Adjustment

<table>
<thead>
<tr>
<th>Category</th>
<th>ACA Risk Adjustment</th>
<th>Medicaid Risk Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Benefits</td>
<td>Benefit tiers based on actuarial value; benefit structure varies within tiers.</td>
<td>Plans provide, at a minimum, federally or state-mandated benefits</td>
</tr>
<tr>
<td>Plan-level premium</td>
<td>Premiums paid by enrollees can vary based on age, tobacco use, geography and family size.</td>
<td>Premiums paid to plans typically vary by eligibility category, age, gender, and geographic area</td>
</tr>
<tr>
<td>Model estimation</td>
<td>Concurrent</td>
<td>Prospective or concurrent (more states use concurrent)</td>
</tr>
<tr>
<td>Lag Period</td>
<td>None</td>
<td>Typically 1 – 2 years</td>
</tr>
<tr>
<td>Transfer of funds</td>
<td>Changes assessed at issuer level, lower risk plans are charged and higher risk issuers make payments after the benefit year.</td>
<td>Prospective adjustment for relative risk based on historical plan-level average; a few states employ individual level risk adjustment</td>
</tr>
<tr>
<td>Budget</td>
<td>Budget-neutral</td>
<td>Budget-neutral</td>
</tr>
</tbody>
</table>

### DATA FLOW (MEDICARE & MEDICAID)

- Medical Claim Data
- Pharmacy Data
- Slightly Data

Risk Adjustment Administrator (CMS or State Medicaid)
De-identified data: do the XML files going to the EDGE server accurately represent the utilization documented in the data warehouse?

Risk score calculation is very tightly tied to enrollment status:
- Metal level (5 different models, with 4 models blended together)
- Cost-Sharing Reduction (CSR) status
- Diagnosis codes must occur within the enrollment window

Diagnosis code acceptance for risk adjustment is tied to paid claims.

The Payment Transfer Calculation:

\[
\text{Payment Transfer} = (\text{Baseline Premium} - \text{Adjusted Plan Risk Score} - 1) \times \text{Premium}
\]
ZERO-SUM TRANSFER AT THE ISSUER LEVEL

- Plan 1 (Average risk score = 0.9)
- Plan 2 (Average risk score = 1.1)
- Exchange
- Average pmpm premium = $400
- Plan A pays Plan B: $40 pmpm

Fallout from the Payment Transfer
- On June 30, 2015, the risk adjustment payment transfer system moved approximately $2.2 billion dollars between issuers!
  - $1.7 billion was transferred in the individual market
  - Almost every issuer was involved in the payment transfer—only 18 issuers out of 772 had a zero dollar payment transfer
- Plus, there were an additional $7.9 billion in reinsurance payments
- Only about 12 percent of risk corridor payments were made

Anyone Doubt the 3-Rs?
- 2 of the three Rs are temporary...if you doubt them for too much longer, they will be gone!
  - Reinsurance and risk corridor programs expire after the 2016 contract year
- Risk adjustment is a permanent program
- In 2014, many issuers were too inundated with baseline ACA implementation challenges to give adequate attention to risk adjustment
### Reinsurance Parameter Changes in 2015 and 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Attachment Point</th>
<th>Reinsurance Cap</th>
<th>Coinsurance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$45,000</td>
<td>$250,000</td>
<td>100 percent</td>
</tr>
<tr>
<td>2015</td>
<td>$45,000</td>
<td>$250,000</td>
<td>50 percent</td>
</tr>
<tr>
<td>2016</td>
<td>$90,000</td>
<td>$250,000</td>
<td>50 percent</td>
</tr>
</tbody>
</table>

### Initial Validation Audits in 2015

- CMS has cancelled the audits for 2015
- First “practice” audit will occur in 2016 for the 2015 contract year
- However, the two “practice” audits are now reduced to one
- Secondary “audit-driven” payment transfers still begin in 2018 for the 2016 contract year
- Web-based RADV training to begin soon (11/18) and run through 12/23

### Cancelled IVA Audits are a Mixed Blessing

- No 2015 audit is one less thing to deal with
- But there is likely to be significant incidence of diagnoses that will not substantiate against the medical record upon audit
- Unlike Medicare-Advantage’s “paper tiger” RADV audits, the commercial IVA process will impact every issuer
- Issuers should conduct mock audits on larger sample sizes
- Issuers need baseline risk score accuracy data at the level of provider groups
Well, Can’t We Just Code with Abandon?

- Just because there are no IVA audits in 2015, doesn’t mean that it’s time to party.
- The dissemination of accurate risk adjustment knowledge is so limited, that issuers need to use the “breathing room” to teach clinical documentation to their providers.
  - Develop incentive programs around clinical documentation.
  - Consider a shared savings approach- it may be difficult to rely on percent of premium capitation.

False Claims Act

- The government still has the False Claims Act, which has been dramatically expanded under the ACA.
  - Overpayments now have to be reported to HHS within sixty days of detection.
- Elements a False Claims Act violation:
  - Defendant makes a false statement or engages in a fraudulent course of conduct.
  - Do so with the required scienter (intent or knowledge of wrongdoing).
  - The statement or course of conduct is material.
  - The statement or course of conduct caused the government to pay out money of forfeit moneys due.

CONTACT INFORMATION

- Richard Lieberman
- rlieberman@healthcareanalytics.expert
- 720-446-7785
- www.healthcareanalytics.expert