Issues for risk adjustment in Medicare

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Importance of risk adjustment in Medicare

- Nearly 30% of beneficiaries are in MA program
- Needed for payment neutrality among fee-for-service (FFS), Medicare Advantage (MA), and accountable care organizations (ACOs)
- If providers are asked to take on more risk, payments need to be risk adjusted
Background for risk adjustment in MA

- MA plans receive monthly capitated payments for each enrollee
- Payments are risk adjusted based on how much enrollees are expected to cost
  - Higher payments for sicker enrollees
  - Lower payments for healthier enrollees
- Risk scores represent how much enrollee is expected to cost relative to national average
Description of CMS-HCC

- Uses data on beneficiaries’ demographics and medical conditions to determine risk scores
- Medical conditions
  - Conditions from inpatient, outpatient, and physician visits in previous year
  - Collected into broader categories
- Each demographic variable and condition category has a coefficient that CMS uses to determine risk scores
Example of predicted cost and risk score for beneficiary in community

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Coefficient</th>
<th>National avg. cost</th>
<th>Risk score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male, age 74</td>
<td>$3,302</td>
<td>$9,276</td>
<td>.356</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$1,642</td>
<td>$9,276</td>
<td>.177</td>
</tr>
<tr>
<td>Diabetes w/o complications</td>
<td>$1,095</td>
<td>$9,276</td>
<td>.118</td>
</tr>
<tr>
<td>COPD</td>
<td>$3,210</td>
<td>$9,276</td>
<td>.346</td>
</tr>
<tr>
<td>Total</td>
<td>$9,249</td>
<td>$9,276</td>
<td>.997</td>
</tr>
</tbody>
</table>
Performance of CMS-HCC model

- Explains 11% of variation in costs
- Has reduced favorable selection (Newhouse et al. 2012)
- But, for a given condition category, plans can benefit if they attract the lowest-cost beneficiaries
- Also, underpredicts costs for frail/high-cost beneficiaries
- Plans focusing on the sickest beneficiaries may be at a disadvantage (PACE, SNPs)
MedPAC analysis to improve CMS-HCC predictive power (June 2012)

- Add socioeconomic measures (race, income): No improvement
- Add number of conditions for each beneficiary: Improves payment accuracy for frailest beneficiaries
- Use two years of diagnosis data to determine condition categories:
  - Improves payment accuracy for frailest beneficiaries
  - Not as much as adding number of conditions
More recent analyses to improve CMS-HCC predictive power

- Add measures of functional status (ADLs)
  - Does little to improve CMS-HCC model, which is consistent with other studies
  - Has been shown to improve more focused models (episodes including PAC)
- Separating dual eligibles into full- and partial-dual eligibles would improve payment accuracy for these two groups
Potential changes to address broader risk adjustment issues

- Replace CMS-HCC model with a different model (CRG, ACG, CDPS)
- Add data (multiple years, functional status, drug data, number of conditions)
- Concurrent risk adjustment
- Hybrid (prospective with concurrent)
- Beneficiaries’ prior cost/use
- Truncate costs
Replace CMS-HCC model

- All possible replacements use diagnosis and demographic data, as does the CMS-HCC
- Not much difference between models in terms of performance
- Moving from CMS-HCC to another model unlikely to be helpful
Adding data helpful, but limited

- Additional years of diagnoses: Improves overall fit, but increases underprediction for high-cost cases
- Add functional status:
  - Little improvement for CMS-HCC
  - For narrower populations, can improve risk adjustment
- Add drug data: Adds little to broad models
- Patient severity: Helpful, but costly to collect
Concurrent risk adjustment

- Prospective: Use diagnoses from last year to predict costs in current year
- Concurrent: Use diagnoses from current year to predict costs in current year
- Improves $R^2$ substantially: captures costs as conditions occur
- But, plans have less incentive to manage enrollees’ care; also, plans have more incentive to upcode
Hybrid mixes concurrent with prospective

- Concurrent adjustment for a few conditions that are chronic, costly, well defined, and easy to verify
- Prospective adjustment for all other conditions
- Analysis by Dudley et al. (2003)
  - Makes strong improvement to predictive power
  - Sample from non-Medicare population
  - Additional analysis needed to identify which conditions should be concurrent
Including prior cost or use in risk adjustment model

- Excellent predictor of future costs; substantially improves predictive power
- Can capture patient severity, patient preferences, providers’ practice patterns
- Winkelman et al. (SOA 2007): Warn against using prior-year costs; weakens incentives to contain costs
- Schone and Brown: Support using prior year costs, recommend using non-preventable hospitalizations as proxy
Truncating costs from high-cost claims

- Challenge: Cost data are skewed, reducing risk adjustment effectiveness
- Truncating high-cost claims is a common strategy for addressing this issue
- What to do about costs above truncation?
  - Reinsurance
  - Pay plans on FFS basis
- Where should the threshold be set? Should it differ by condition?
Neutrality among FFS, MA, and ACOs

- Commission has recommended payment neutrality between FFS and MA (March 2001, March 2002, June 2005)
- Encourages enrollment in more efficient sector
- Should neutrality also include ACOs?
Payment neutrality and risk adjustment

- If payment neutrality is our objective, risk adjustment is vital
- MA payments = (risk score) \times (base rate)
- If base rate = local FFS, obtain neutrality with appropriate risk adjustment
Important issues regarding neutrality and risk adjustment

- FFS and ACOs responsible for hospice and ESRD; MA plans are not.
- Under alternative system, ACOs may be able to ‘code creep’ like MA plans.
- If we want payment neutrality among FFS, MA, and ACOs, potential changes discussed earlier need to be considered in that context.
- FFS data used to calibrate CMS-HCC, should MA data be used when available?
Discussion

- Direction for risk adjustment for MA
- Risk adjustment for broad reforms such as episodes
- Risk adjustment in context of neutrality for FFS, MA, and ACOs