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Risk-Based Bonus Payments for the Patient-Centered Medical Home

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Risk-Based Bonus Payments for the Patient-Centered Medical Home

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Background

The Patient-Centered Medical Home (PCMH) requires fundamental reform of health care financing. We propose a Risk-Based Comprehensive Payment system with risk-adjusted base and bonus payments.

Bundled base payments cover the expected cost of primary care services but do not encourage quality. Bonus payments incentivize desired performance in clinical quality, efficiency, and patient-centeredness.

Bonus payments can:
- Discourage use of low-value services
- Encourage clinical quality, patient health and satisfaction
- Provide each practice with a fair opportunity to earn appropriate rewards for doing a good job with its mix of simple and complex patients

Base and bonus payments require credible risk adjustment to discourage practices from cherry-picking easy patients and dumping difficult ones.

We gratefully acknowledge collaboration with scientists at Verisk Health, Inc, and support from The Commonwealth Fund.

Methods

We estimated models to predict thirteen cost and utilization measures in 17.4 million commercially insured people using diagnoses, age, and sex from Thomson-Reuters MarketScan® 2007 claims data.

Using the same data, we imputed assignment of 456,781 people to 436 medium-sized primary care practitioner (PCP) panels (500 – 5000 patients).

For each measure, a PCP’s performance is judged by summing the difference between observed (O) and expected (E) outcomes across panel members.

For each outcome we calculated: mean; coefficient of variation, or CV = SD/mean; and both individual and grouped $R^2$ as measures of predictive accuracy.

<table>
<thead>
<tr>
<th>Description</th>
<th>Member-level (N=456,781)</th>
<th>PCP-level (N=436)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mean</td>
<td>Coeff. of Variation</td>
</tr>
<tr>
<td>Number of prescriptions for antibiotics of concern (ABX)</td>
<td>0.571</td>
<td>1.59</td>
</tr>
<tr>
<td>Number of prescriptions for all antibiotics (AB)</td>
<td>1.061</td>
<td>4.72</td>
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<tr>
<td>Emergency department visits</td>
<td>0.181</td>
<td>3.49</td>
</tr>
<tr>
<td>Advanced imaging tests, in RVUs</td>
<td>3.165</td>
<td>2.36</td>
</tr>
<tr>
<td>Total health spending, in dollars</td>
<td>$3,675</td>
<td>4.01</td>
</tr>
</tbody>
</table>

Discussion

Bonus calculations should account for case-mix differences across practice panels.

Risk-adjusted payments for less variable outcomes focus incentives on provider-associated, rather than case-mix-driven or random, variations.

Rather than attempting to reward reductions in total health spending, risk-sensitive calculations of more targeted outcomes will better support the goals of a PCMH.