Managing Financial Risk: Implementation & Contracting Considerations
Agenda

• Understanding the financial risk curve
  – At the population level
  – At the episode/bundle level

• Contracting considerations
  – Risk corridors – the “Donut Hole”
  – Pricing of stop loss
The Different Zones of Health Care Spending

- **Routine Sick and Preventive Care**
- **Chronic Illness, Acute Conditions, Procedures**
- **Uncommon Conditions & Procedures**

<table>
<thead>
<tr>
<th>Number of Plan Members</th>
<th>Total Cumulative Costs</th>
<th>Average Costs Per Member Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>864,152</td>
<td>9/29/16 VBP Bootcamp</td>
</tr>
</tbody>
</table>
# How It Plays Out In DSRIP and VBP Pilots

2014 Medicaid Claims, Random Sample of 50K Plan Members, Numbers Rounded Up

<table>
<thead>
<tr>
<th>PMPY</th>
<th>TCGP</th>
<th>IPC</th>
<th>CCB</th>
<th>Maternity</th>
<th>HIV/AIDS</th>
<th>HARP</th>
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</thead>
<tbody>
<tr>
<td>Volume</td>
<td>45,000</td>
<td>35,000</td>
<td>15,000</td>
<td>2,000</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Average</td>
<td>$5,000</td>
<td>$700</td>
<td>$2,700</td>
<td>$10,500</td>
<td>$32,250</td>
<td>$20,750</td>
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<tr>
<td>10th %ile</td>
<td>$200</td>
<td>$0</td>
<td>$0</td>
<td>$6,400</td>
<td>$6,300</td>
<td>$2,100</td>
</tr>
<tr>
<td>25th %ile</td>
<td>$450</td>
<td>$60</td>
<td>$121</td>
<td>$7,500</td>
<td>$13,700</td>
<td>$5,600</td>
</tr>
<tr>
<td>75th %ile</td>
<td>$3,750</td>
<td>$800</td>
<td>$2,500</td>
<td>$11,200</td>
<td>$41,000</td>
<td>$25,750</td>
</tr>
<tr>
<td>90th %ile</td>
<td>$10,150</td>
<td>$1,500</td>
<td>$7,000</td>
<td>$15,300</td>
<td>$55,200</td>
<td>$45,000</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>4.6</td>
<td>2.4</td>
<td>2.6</td>
<td>0.7</td>
<td>0.8</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Each cohort has its own distribution of costs and the coefficient of variation provides an indication of the length of the “tail” of the distribution. The longer the tail, the more variation and high cost cases. Small swings in high cost cases can impact the rest of the cohort.
The Effect of Small Samples On Financial Results

Sample Size: Number of Patients With Asthma

Cumulative Variance of Expected-to-Actual Costs of Asthma as a Percent of Actual

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Cost Distribution of Episodes

Financial risk is asymmetrical:
• you can’t produce care for an episode for $0 (meaning there are limited gains),
• but you can potentially lose a lot on a single case.

The majority of high costs in an episode is driven by potentially avoidable complications (PAC)
There Are Significant Opportunities To Increase Value

Reduce PACs to be a Star

Reduce PACs & Episode Costs to be a Star
Understanding Asymmetrical Risk

- We randomized 200 patients in 1000 physicians, created severity adjusted budgets and compared the budget to actual, and netted out the variance across all 200 patients to end up with a net gain or loss.
- We then simulated the effect on providers based on four different types of risk contracts – upside only, 100% upside/60% downside, 50/50 up/down, 100/100 up/down.
- We then simulated the effect when (a) patients are randomly distributed, (b) the provider has a moderately higher rate of severe patients, (c) a much higher rate of severe patients, and (d) a very high rate of severe patients.
Potential For Gains/Losses By Provider for Diabetes

[Diagram showing box plots for total savings or losses grouped by risk arrangements and risk profiles: Random, 20% Overweight, 50% Overweight, 80% Overweight.]

Risk Profile
- Random
- 20% Overweight
- 50% Overweight
- 80% Overweight

Risk Arrangement
- Upside Only
- 100 Up, 60 Down
- 50 Up, 50 Down
- Full Risk

Total Savings (or Losses) ($1,000)
Potential For Gains/Losses By Provider for Diabetes

Gains/Losses Under Stop Loss (99th Pctile) - Expected Costs

- Risk Profile:
  - Random
  - 20% Overweight
  - 50% Overweight
  - 80% Overweight
  - 80% w Stop Loss

- Risk Arrangement:
  - Upside Only
  - 100 Up, 60 Down
  - 50 Up, 50 Down
  - Full Risk

- Total Savings (>0) or Losses (<0) ($1,000)
Implications For Equal Gain/Loss Sharing

• Even when adjusting for patient severity, a random assignment of patients yields a slightly greater potential for losses than gains because of the asymmetrical nature of gains/losses.

• A slight overweighting of greater than average severe patients can cause a greater imbalance in the potential for gains/losses by provider.

• A large overweighting of very severe patients will almost always result in provider losses.

• The opposite is also true.

• It’s possible to level the playing field up front, and then provider performance does the rest.
Cost Distribution of Episodes When Instituting a Stop-Loss
The “Donut Hole”

- Stop Loss: 150%
- Provider Risk – “Donut Hole”:
- Payer Risk:
Managing Financial Risk in a Fixed Price Contract

• The provider is at risk for the excess costs over the prospective budget, up to the stop loss per episode
  – The budget is severity adjusted
  – The extent to which a provider is already highly efficient, a margin can be negotiated
  – The “donut hole” contains manageable risk
• There can be an aggregate stop loss in addition to a per episode stop-loss
• In an “upside only” model, the stop loss = budget
  – But there is a cost to stop-loss for the payer
Considerations On Stop Loss

• The payer cost of stop-loss can be estimated by calculating the total costs in the tail of the episode cost distribution above the individual episode stop-loss.
• The potential for provider loss (the “donut hole”) can be estimated by calculating the area of the episode cost distribution above the average bundle price and the stop loss limit.
• The potential for provider gain can be estimated by calculating the area of the distribution above the actual and up to the average bundle price.
• Payers and providers can negotiate a “premium” for the stop loss, which would be equivalent to the payer’s estimated costs for instituting the stop loss, spread across all of a provider’s bundles and result in a budget reduction. The lower the stop loss, the higher the stop loss “premium”.

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Effects Of Stop Loss On Budget and Gains/Losses

Reducing the stop-loss has two effects:
1. Budgets are reduced because past high cost cases are trimmed
2. Budgets are further reduced by the “excess stop-loss” insurance

There is a point of diminishing returns in reducing stop-loss limits because the potential for gains gets compressed as the budget is compressed towards the minimum production costs of the episode, and the potential for losses increases to the point where all cases could generate a loss.
Margins Could Be Considered For Highly Efficient Providers

• A margin is a percentage negotiated by the payer and provider, which is added to the expected or budgeted typical costs (not to costs of potentially avoidable complications).

• You can’t produce a bundle for $0, and there is an absolute floor that could be calculated. Providers close to the floor need a margin to reinvest in continuous performance improvement.
Quality Report Card Impact

- Providers are required to report a certain number of quality metrics
- The metrics can be assembled into a scorecard
- When more than one clinical domain is being measured (for example practices in IPC arrangements or contracting for the chronic care bundle), scorecard scores can be weighted by patient population to arrive at an aggregate score
- Best practices suggest that the level of achievement on a scorecard (relative to peer average or individual performance improvement) should drive the rewards distribution
  - A high performer will have a more difficult time improving performance and so the majority of the reward should be given for maintaining high score, and a small proportion for incremental improvements
  - For others, achieving a minimum standard triggers a base reward and the balance can be distributed on a proportional formula
Example Of Financial Reward Formula

• Practice qualifies for half of total potential bonus when achieving a minimum scorecard score of 50
• The balance is distributed on a sliding scale from 50 to 90
  – Practice achieves 79.7, which is at 74.25% of that scale \((79.7-50)/(90-50)\)
• The full reward is distributed for scores above 90
• The opposite applies to losses – the higher the score, the lower the loss sharing
  – Full loss for scores lower than 50, min loss for scores above 90, proportional in between
General Considerations

• Because of the asymmetrical distribution of gains and losses – you can’t produce good care management of a patient with a chronic disease for $0, but you can potentially end up with patients that have very high costs of PACs – consider asymmetrical risk-sharing contracts.
• In our simulation, 100% upside and 60% downside created a more even playing field.
• Using a stop-loss mitigates the asymmetry by limiting the losses.
• The specific gain sharing formula can be informed by the shape of the episode cost distribution and the level of stop-loss.
• Once the up front odds have been leveled, the end result is a function of provider performance, not chance.
Summary of Financial Risk Management Strategies

• Upside/downside risk sharing arrangements don’t have to be symmetrical
• Stop losses are for individual cases and can be in aggregate. There is a cost to a stop loss because the payer assumes the risk. “Excess” stop-loss insurance should come in reduction of the target budget/price
• Defined margins are important to insulate providers from incurring losses because their potential for achieving further efficiencies is low
• Quality report card scores can be used to encourage continued quality even when providers have a bad financial year, and can be used to limit upside when quality doesn’t improve or fails to meet a certain threshold performance