Price Transparency and Value-Based Purchasing in Health Services

James C. Robinson
Leonard D. Schaeffer Professor of Health Economics
Director, Berkeley Center for Health Technology
University of California, Berkeley
Overview

- Value-based purchasing: the easiest target
- Value deficiencies
  - Appropriateness, site of care, efficiency, inputs
- Matching incentives to choices
- Fears and strategies
Value-based Purchasing

- Targets: appropriateness, efficiency, site of care
- Focus on services with high variance in prices but low variance in quality: easiest large target for savings
- Avoid debates:
  - Is a patient’s care necessary?
  - Are a provider’s high costs due to patient mix acuity?
- These questions are important but very controversial
Value Purchasing for High-Cost Acute Services

- Efforts to reduce inappropriate utilization have raised consumer concerns (‘death panel’), while efforts to improve quality have not reduced cost
- New targets are needed
  - Drugs, lab tests, and imaging tests with high variance in price and little variance in quality
- Need to move on to high-cost procedures and facilities (that incorporate drugs, lab, imaging)
- Most costs of care are in specialty, not primary, services: cardiology, orthopedics, oncology
- Coordination of physicians, facilities, and clinical inputs (drugs, devices, imaging, diagnostics) is key
Value Deficiencies in High-Cost Acute Services

- Unjustified variation in rates of procedures
- Unjustified variation in cost per procedure
- Unjustified variation in cost per device
- Unjustified variation in patient outcomes
Dartmouth Atlas - Rate of Total Knee Replacement in Medicare Beneficiaries
## Total Knee Replacement Surgery in California Hospitals 2008

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Device Cost</th>
<th>Total Surgical Cost</th>
<th>Device Cost as % of Medicare FFS Reimbursement</th>
<th>Device Cost as % of Commercial HMO/PPO Reimbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st percentile</td>
<td>$1,797</td>
<td>$7,668</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>25th percentile</td>
<td>$4,166</td>
<td>$10,590</td>
<td>29%</td>
<td>18%</td>
</tr>
<tr>
<td>Median</td>
<td>$5,071</td>
<td>$12,619</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>75th percentile</td>
<td>$6,977</td>
<td>$14,969</td>
<td>51%</td>
<td>40%</td>
</tr>
<tr>
<td>99th percentile</td>
<td>$12,093</td>
<td>$24,476</td>
<td>126%</td>
<td>119%</td>
</tr>
</tbody>
</table>

- **Number of Hospitals**: 45
- **Number of Patients**: 6,848
Figure 5
Total Knee Replacement Surgery in California Hospitals, 2008
Complication Rate
Value Purchasing: Choices

1. Choice among therapeutic alternatives
   - Medical v. surgical v. endovascular…
   - “Appropriateness strategy”

2. Choice among provider organizations
   - Given procedure is to occur, where?
   - “Channeling strategy”

3. Choice among site of care
   - Inpatient v. outpatient, hospital OP v. free ASC
   - “Site of care strategy”

4. Choice among clinical inputs
   - Drugs, devices, diagnostics, imaging
   - “Formulary strategy”
Value Purchasing: Instruments

1. Improved information
   - Example: Patient and/or device registry

2. Improved patient education, engagement
   - Example: Shared decision-making

3. Aligned physician-hospital incentives
   - Example: Episode of care (EOC) payment

4. Aligned patient-provider incentive
   - Example: reference pricing in benefit design
# Matching Instruments to Choices

<table>
<thead>
<tr>
<th></th>
<th>Device Registry</th>
<th>Shared Decision Making</th>
<th>Episode of care payment</th>
<th>Consumer cost sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate ness</td>
<td>X</td>
<td>X</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hospital channeling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>Site of care channeling</td>
<td>0</td>
<td>X</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>Selection of implant</td>
<td>X</td>
<td>0</td>
<td>X</td>
<td>?</td>
</tr>
<tr>
<td>Process efficiency</td>
<td>0</td>
<td>0</td>
<td>X</td>
<td>0</td>
</tr>
</tbody>
</table>
Concerns about Price Transparency

1. Price transparency facilitates collusion
2. Price transparency is burdensome and costly
3. Consumers do not respond as desired
1. Price Transparency and Provider Collusion

- Providers monitor each others’ prices and seek to avoid price competition
- Prices in intermediate product markets outside health care often are confidential
- Strategic response: price transparency is most important where the consumer, rather than health plan or other intermediary, is purchasing
- Example: consumers need to know prices for knee replacement procedures, but not for the implants used in the procedure (except for implants where there is consumer choice and cost sharing)
2. Price Transparency and Administrative Burden

- Collecting, publishing, updating prices is costly
- Too much data overwhelms value of information
  - Example: hospital chargemasters are online
- Strategic response: Consumers need price information only on bundles of services (surgical course of care) or groups of providers (monthly premium contribution across medical groups), not on every component of care
- Standardized units of measurement are important: DRG, DOFR, premium
3. Consumer Responses to Price Information

- Consumers tend to believe high price implies high quality
  - Strategic response: focus transparency initiatives on services where quality does not vary
- Consumers ignore price information
  - Strategic response: redesign benefits to expose patients to variation in costs via reference pricing
- Consumers are too busy or confused to pay attention to prices
  - Strategic response: consumers will go to great lengths to save small sums in other domains. They will learn to pay attention to health care prices.
Conclusion

- Value-based purchasing has many different targets and instruments
- Services with high variation in cost and low variation in quality are easiest target
  - Drugs, lab tests, imaging, acute procedures
- Incentives for providers and consumers
- All require transparency in prices
- Price transparency must be designed to avoid provider collusion, reduce administrative burden, and focus on consumer choices