Designing Consumer Cost Sharing to Support Bundled Payment to Providers

Bundled Payment Summit
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Overview

- The problem: variations, costs, complications
- Key choices and incentives
- Benefit design and cost sharing options
- Coordinating consumer cost sharing and provider payment incentives
- Bundled payment and reference pricing
The Problem: Value Deficiencies in Acute Care

- Unjustified variation in rates of procedures
- Unjustified variation in cost per procedure
- Unjustified variation in cost per device
- Unjustified variation in patient outcomes

- Example: Knee replacement
- Example: Lumbar spine fusion
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
Market Power in the Market for Orthopedics

Range in Average Price per Procedure Across 178 California Hospitals for CalPERS Patients Undergoing Knee and Hip Replacement
2009

- KNEE
- HIP
Figure 5
Total Knee Replacement Surgery in California Hospitals, 2008
Complication Rate
Rate of Back Surgery per 1,000 Medicare Enrollees, by Hospital Referral Region, 2007 (Dartmouth Atlas)
Costs and Reimbursements for Lumbar Fusion 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>$3,239</td>
<td>$12,318</td>
<td>3.6%</td>
<td>3.2%</td>
</tr>
<tr>
<td>25th Percentile</td>
<td>$7,077</td>
<td>$20,630</td>
<td>18.0%</td>
<td>25.5%</td>
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<tr>
<td>Median</td>
<td>$8,695</td>
<td>$26,175</td>
<td>31.0%</td>
<td>32.8%</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>$12,868</td>
<td>$29,469</td>
<td>43.5%</td>
<td>52.0%</td>
</tr>
<tr>
<td>99th Percentile</td>
<td>$37,323</td>
<td>$51,049</td>
<td>97.3%</td>
<td>2365%</td>
</tr>
</tbody>
</table>

Number of Hospitals 38  
Number of Patients 6,848
Lumbar Fusion Surgery In-Hospital Complication Rate, California 2008
Key Choices for Improving Efficiency

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

2. Choice among provider organizations
   - Given the procedure is to occur, where and by whom should it be performed?
   - “Channeling strategy”

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

4. Choice among clinical inputs (devices)
   - Drugs, devices, diagnostics, imaging
   - “Formulary strategy”
Incentive Instruments

1. Improved information
   - Patient and/or device registry
2. Improved patient education, engagement
   - Shared decision-making
3. Aligned physician-hospital incentives
   - Episode of care (EOC) payment
4. Aligned patient-provider incentives
   - Benefit design: reference pricing
Bundled Provider Payment: Goals and Principles

- Incentives for **physician-hospital alignment**
  - Single payment makes physician co-responsible for efficiency as well as quality of services
  - This creates new MD interest in device performance and registry
  - Physician payment includes ‘gain-sharing’
  - Reduce ‘conflicts of interest’ for physicians and medical device firms
  - Consistent with broader movement towards physician-hospital integration (employment, joint ventures, ‘accountable care organization’)

Knee Replacement Procedure Episode Group
Average Commercial Population Costs, by Type of Service

ALOS=3.9 Days

Pre-Surgery
- $179
- 0.7% of Total

Pre-Surgery I
- $273
- 1.0% of Total

Inp Stay
- $21,855
- 82.3% Tot

Recovery
- $2,720
- 10.2% of Tot

Follow Up I
- $1,019
- 3.8% of Tot

Follow Up II
- $519
- 2.0% of Tot

Total Cost: $26,565

Total Allowed Costs (000)
- Lab: $57
- PT: 40
- Radiology: 39
- Vis, PCP: 33
- Vis, Ortho: 22
- Rx: 16
- Others: 66
- IP Stay: $17,568
- Surgery: 40
- Anesthesia: 773
- IP Vis, PCP: 58
- IP Vis, Other: 54
- Rx: 41
- Others: 158

Pre-Window
Knee Replacement Surgery

Post-Window

1) Source: Ingenix Claims Data- 602 complete episodes
Consumer Cost Sharing: Goals and Principles

- **Economics**: reduce use of low-value services, including inappropriate services and overpriced products & providers
- **Pooling**: reduce pressure on insurance premium and thereby encourage coverage
- **Simplicity**: easy to understand and administer
- **Fairness**: excessive cost sharing burdens the ill and exposes all patients to risk
Instruments for Cost Sharing

- **Copayments**: fixed dollar payments for each physician visit (e.g., $20) or hospital admission (e.g., $250)
- **Coinsurance**: percentage payment for each service (e.g., 20%), up to an annual maximum (e.g., $5000)
- **Deductible**: patient pays first $X in claims cost per year (e.g., $500) or high deductible (e.g., $5000) with tax-favored savings
- **Reference pricing**: Insurer pays first $X and then consumer pays remainder of provider charge (reverse deductible)
Copayments

- **Economics**: modest copays have only modest effect on use, except for drugs (Copay does not vary according to unit price for drugs, MD visits, hospitals)

- **Pooling**: does not have major effect on premium and hence on coverage

- **Fairness**: copays protect the ill, as their exposure to risk is limited

- **Simplicity**: easy to understand and collect

- **Copay-based plans are expensive, losing market share to plans based on coinsurance (and deductibles)**
Coinsurance

- **Economics**: have significant effect on reducing use, but OOP max limits effect on high-cost services, admissions, drugs

  Coinsurance does vary by unit price

- **Pooling**: can have large effect on premium if % and annual OOP max are high

- **Fairness**: coinsurance exposes the ill to much more risk than copays, up to OOP max

- **Simplicity**: difficult understand and collect

- **Coinsurance is replacing copayments**, is being incorporated into deductible-based PPO and CDHP products
Deductibles

- **Economics**: have major effect on use and also shifts responsibility to patient
  - But once patient has exceeded the deductible, cost sharing does not affect use of high-cost drugs, MD visits, hospitals etc.

- **Pooling**: Has major effect on premium, if deductible is high enough

- **Fairness**: deductibles expose patient to risk, but most deductibles have been modest

- **Simplicity**: easy to understand but not easy to administer or collect
Cost Sharing for Major Acute Procedures

- Traditional forms of consumer cost sharing do not provide strong incentives for cost consciousness, and hence are changing
  - For acute interventions: all patients exceed deductible and thus are cost-indifferent when choosing providers
  - Dollar copayments do not reflect variations in bundled case rates and episode costs across provider teams
- If consumers are not sensitive to cost differences across provider teams, they will favor high-cost teams (assuming high price=high quality), which will encourage price increases and non-price competition among providers
Benefit Design for Major Acute Procedures

- **Reference pricing:** Insurer establishes a maximum benefit limit for each procedure and pays hospitals up to that benchmark. The employee/patient pays the difference between that benchmark and the rate actually charged by the provider team chosen by the consumer.
  - Anthem PPO for PERS (orthopedics)
  - Safeway self-insured (radiology, lab tests)

- **Centers of Excellence:** Insurer/employer contracts with one hospital nationally or in each region for particular classes of procedures. Benefits for employees strongly favor use of those facilities
  - Blue Shield HMO (orthopedics)
  - Lowes self-insured (cardiology)
Assessment of Reference Pricing

- **Economics**: has major effect on patient choice of provider or product; is especially well suited for services with wide variance in price but low variance in quality

- **Pooling**: Could have major effect on premium, if used more widely

- **Fairness**: if enrollees can have adequate choice of provider and product under the reference price limit, they can avoid costs

- **Simplicity**: can be difficult to explain to consumers, as a novel principle. Providers may have difficulty collecting
Are Consumer and Physician Incentives Complements or Substitutes?

**SUBSTITUTES**
- Benefit re-design is quicker and does not require re-contracting with providers
- It can be particularly effective in markets where providers have consolidated and raised prices
- Purchasers have limited time and capabilities and cannot change consumer & provider incentives at the same time

**COMPLEMENTS**
- Benefit re-design does not create meaningful choices among coherent alternatives
- Prices need to be interpretable and transparent in order for cost sharing to influence choices
- Payment reform (EOC) does not create incentive for providers to reduce pricing
Conclusion

- There exists considerable unjustified variation in use, costs, and outcomes
- Purchasers and payers are experimenting with both payment reform and benefit re-design
- Consumer incentives can support payment reform but both are administratively complex
- Let 1000 flowers bloom