

---

# Patient Choice, Price Transparency, and High-Value Care

---

Katherine Baicker

C. Boyden Gray Professor of Health Economics

Harvard T.H. Chan School of Public Health

*Not for citation, reproduction, or distribution*

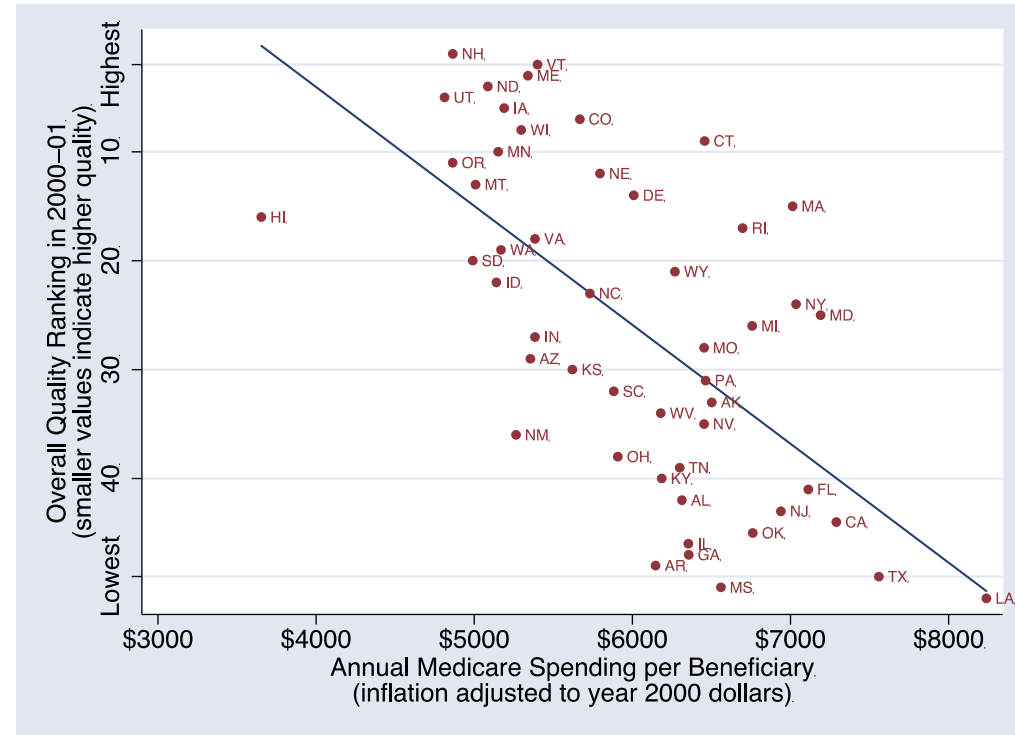
---

# Agenda

- Context for deploying transparency tools
- Evidence on patient responses to cost-sharing
  - Effects on utilization, value, and health
  - Interaction with payment policy
- Complementing transparency
  - Addressing behavioral factors

# Moving Towards High-Value Care

- Ample evidence that health care resources not put to best use
- Insurance coverage alone doesn't guarantee high-quality care
- Care varies even when prices don't



Source: Baicker and Chandra, *Health Affairs*

# Evidence of Underuse and Overuse

## Underuse of High-Value Care

Statins	Reduce mortality and heart attacks	Adherence < 70%
Beta-blockers	Reduce mortality post heart attack 25%	Adherence < 50%
Anti-diabetics	Decrease cardiovascular mortality (OR .74) (7)	Adherence < 65%
Immunosuppressants for Kidney Transplant	Reduce risk of organ rejection seven-fold	Adherence < 70% (9)(10)
Recommended Preventive Care	Effective immunizations, disease management, follow-up care post surgery	< 40% of diabetics receive semi-annual blood tests; Recommended immunization rates 60% for children
Pre-natal care	Reduces infant mortality	< 50 % receive adequate or better care

## Overuse of Low-Value Care

MRI for low back pain	Increase the number of surgeries with no resultant improvement in outcomes	16% of doctors report routine use of MRI
PSA testing	No significant mortality change	49% of 50- to 79-year old men tested in past 2 years
Prostate cancer surgery	No difference in overall survival	57% of patients receive radical prostatectomy or radiation as initial treatment
Antibiotics for children's ear aches	At best modest improvement, but with common side-effects (rashes, diarrhea)	98% of visits result in antibiotic Rx

Source: Baicker, Mullainathan, and Schwartzstein, *Quarterly Journal of Economics*

---

# Patient Prices Matter . . .

- Decades of evidence that patients respond to prices
  - ❑ Demand slopes down!
  - ❑ Transparency is necessary
- Prices patients face now hamper some efforts to improve value
  - ❑ Medicare FFS
  - ❑ ACOs

# ... But Not Exactly as Economics Alone Would Predict

Study	Price Change	Change in Use	
		<i>High Value</i>	<i>Lower Value</i>
Chandra (2010)	\$7 increase in drug copay (from ~\$1 to ~\$8)	Elasticity of around .15 for acute care and chronic care Rx	Elasticity of around .15 for "lifestyle" Rx
Goldman (2006)	\$10 increase in copay (from \$10 to \$20)	Compliance with cholesterol meds among high risk drops from 62% to 53%	Compliance with cholesterol meds among low risk drops from 52% to 46%; medium drops from 59% to 49%
Selby (1996)	Introduction of \$25-\$35 ER copay	9.6% reduction in visits for emergency conditions	21% reduction in visits for non-emergency conditions
Johnson (1997)	Increase from 50% coinsurance with \$25 max to 70% coinsurance with \$30 max	40% reduction in use of antiasthmatics; 61% reduction in thyroid hormones	40% reduction in non-opiate analgesics; 22% reduction in topical anti-inflammatories
Lohr (1986)	Cost-sharing vs. none in RAND	21% reduction in use of highly effective care; 40% reduction in beta blockers, 44% reduction in insulin	26% reduction in less effective care; 6% reduction in hayfever treatment, 40% reduction in cold remedies, 31% reduction in antacids
Tamblyn (2001)	Introduction of 25% coinsurance, \$100 deductible, \$200 max for Rx	9.1% reduction in essential drugs	15.1% reduction in non-essential drugs

# Importance of Behavioral Factors

- Traditional problem: “moral hazard”
  - Insurance provides valuable risk protection, but drives higher use
    - Affects insurers’ plan design and individual choices
  - Cost-sharing should balance effects on use and financial protection
- “Behavioral hazard”: Choice errors change that calculus
  - People may not respond “rationally” to prices
  - Copays should balance effects on health care use and health outcomes

# Small Price Changes Can Matter a Lot

Study	Price Change	Use Change	Health Value
Chandra (2010)	\$7 ↑ in drug copay	Elasticities: -.15 to -.23 for essential drugs, asthma, depression meds	6% ↑ hospitalization
Chernew (2008)	Drug copays ↓ from \$5 to 0 for generics; from \$25 to \$12.50 for name brands	Elasticities: -.12 ACE inhibitors; -.11 beta blockers; -.14 diabetes drugs	Beta blockers post heart-attack ↓ mortality by 20-30%
Hsu (2006)	Imposition of \$1000 annual cap	Adherence to antihypertensives, statins, diabetes drugs ↓ 30%	13% ↑ nonelective hospital use; 9% ↑ high cholesterol; 16% ↓ glycemic control
Goldman (2006)	\$10 ↑ in copay	10 percentage point ↓ in statin adherence	Statins ↓ risk of major coronary event by 25%
Lohr (1986)	Cost-sharing vs. none in RAND	↓ in use of insulin of 44%, beta blockers 40%, antidepressants 36%	Diabetes meds can reduce hospitalization risk by 7 ppt
Selby (1996)	Introduction of \$25-\$35 ER copay	9.6% ↓ in visits for emergency conditions	Conditions including heart attack, appendicitis, respiratory failure, etc.
Landsman (2005)	Addition of third drug tier (moving top payment from \$10 or \$20 to \$35 or \$40)	Elasticities: -.16 for ACE inhibitors; -.10 for statins; -1.15 for antidepressants	70% ↑ relapse of depression when meds discontinued

Source: Baicker, Mullainathan, and Schwartzstein, *Quarterly Journal of Economics*



---

# So How Can Prices Help?

- Prices are a powerful tool – but must be deployed with nuance
  - Transparency is necessary – but far from sufficient
- How, when, and by whom info presented is key
  - Trusted source
  - Quality vs. price
- “Nudges” can augment price and transparency levers

# Using Nudges to Complement Transparency

- Info about costs vs. benefits
  - Misperception of risks
  - Salience of symptoms, benefits, cost
  - Delay of benefits vs. payments
- Cognitive overload and complexity
- Reference dependence
  - Framing as gain vs. loss
- Benchmarks
  - Social comparisons

# Principles Apply More Broadly

- Many stakeholders – all people!
  - Transparency and framing key at many junctures
- Patients/enrollees
  - Health care: utilization, compliance
  - Insurance: take-up and enrollment, choice of plans
  - Health behaviors: smoking, obesity
- Insurers and Payers
  - Plans offerings, how to price/subsidize, recruitment tools
- Providers
  - Intensity of treatment, compliance with best practices
    - Choice architecture matters a lot here
    - Transparency and framing