# Biomedical Innovation in the Era of Health Care Spending Constraints

James C. Robinson

Leonard D. Schaeffer Professor of Health Economics and Director, UC Berkeley Center for Health Technology

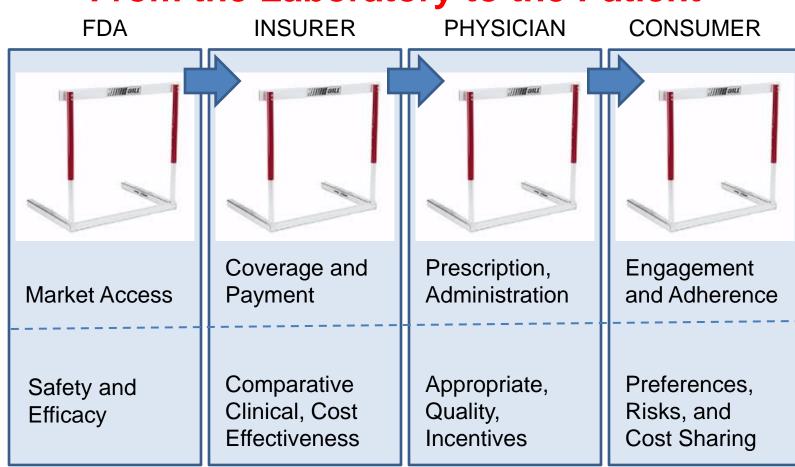
**Health Affairs** 

## **Health Spending and Innovation**

- Biomedical innovation is a cause of increased health care spending, but also a consequence
- High prices and profits fuel investments in risky R&D, and generate new drugs, devices, etc.
- Now spending is increasingly constrained
- This may reduce investment and innovation, but it also may increase the value of innovation by rewarding breakthroughs over me-too products
- We are entering the era of more sophisticated purchasing of medical innovation
- This has important implications for innovators

#### **Health Affairs**

## The Journey of Health Care Innovation: From the Laboratory to the Patient



## **Design to value**

- Many biomedical devices and types of diagnostic equipment are over-engineered and over-priced, relative to consumers' valuation
- They face new entrants with low-priced 'good enough' technologies, often from emerging economies (often developed by US firms there)
- Incumbent firms needs to shift from a focus on product improvement, regardless of cost, to improvement in features that consumers value
- For drugs, this dynamic affects new modes of administration, combination products, biosimilars, branded generics

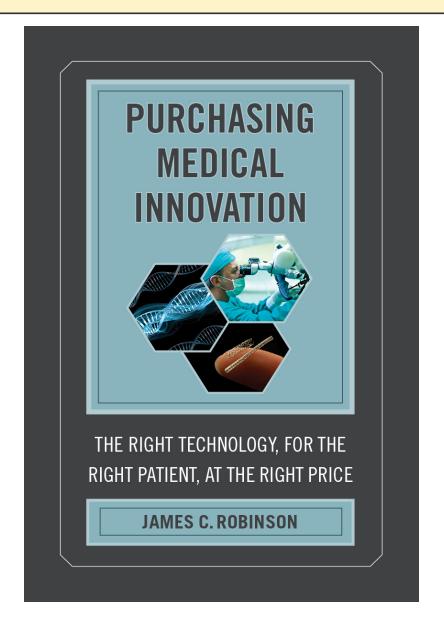
## **Pricing Based on Performance**

- For a truly breakthrough innovations, the US remains committed to premium pricing
  - But premium pricing requires premium evidence
  - Biomedical firms supply HTA and CEA data to purchasers in other nations, and will need to supply similar data in the US
- For incremental innovations, firms will need to price at parity or at a discount to comparators
  - Price competition is strong for many implantable devices, formerly protected drug classes (hepatitis C)
  - Pricing pressure on established products will motivate firms to focus R&D on unmet clinical needs, where premium prices are still available

#### **Product Distribution and Service**

- Biomedical products traditionally were marketed to individual physicians (detailing)
  - There were many questionable financial relationships that now are under pressure from Sunshine and aroused purchasers
- As hospitals consolidate and align with physicians, manufacturers will shift from detailing to account management
  - Sales will be made to hospital and ACO "value committees" rather than in the OR and on the golf course
  - This increases further the need for evidence on performance, with endpoints of value to the providers and not merely insurers
- More sophisticated buyers will require more sophisticated sellers

#### **Health Affairs**



**Purchasing Medical Innovation** analyzes the market and policy dynamics of health care technology, with a focus on the Food and Drug Administration (FDA), insurers, physicians, hospitals, and consumers themselves. The goal is to help the buyers, sellers, and users improve the value of medical technology: better performance at lower cost.