



BERKELEY CENTER
FOR HEALTH TECHNOLOGY

PROMOTING INNOVATION AND AFFORDABILITY IN HEALTH CARE

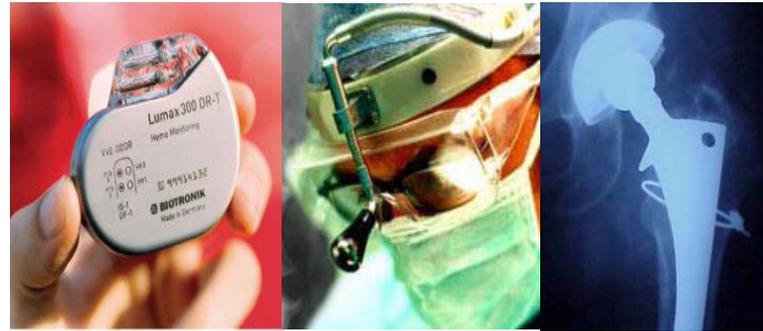
Q1 Medical Device Coverage and Reimbursement
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Overview



- Affordability and innovation
- The importance of purchasing
 - Insurers as purchasers
 - Hospitals and physicians as purchasers
 - Consumers as purchasers
- Implications for innovators

Affordability and Innovation

- High-performance economies pursue both affordability and innovation
- In economic jargon, affordability derives from static efficiency, while innovation drives dynamic efficiency
- Static efficiency is the achievement of the best outcomes (low cost, high quality) at each point in time
- Dynamic efficiency is the achievement of the best path of outcomes (growth and innovation) over time
- Our health care system falls far short of efficiency in both senses



Static Efficiency

- Achieved by maximizing output given current inputs
 - Effective coordination, transparent information, aligned incentives
- Competition based on price drives firms to reduce costs and improve performance
- Standardization and “commoditization” allow product comparisons and enable this price competition
- Price competition creates pressures on producers and providers to reduce cost

Dynamic Efficiency

- Innovation requires investments in R&D, which are risky and require profits
- Competition based on price reduces revenues and profits, and undermines incentives for long-term investments
- Firms seek to compete based on product differentiation and performance, not price
- Firms seek to avoid standardization and commoditization, and obtain above-average profits to finance continued R&D



The Dilemma

Static Efficiency

Dynamic Efficiency

- Standardization and price competition are good for static efficiency but bad for dynamic efficiency
- Barriers to market entry and above-average profits are good for dynamic efficiency but bad for static efficiency
- **What is to be done?**
- **What are the roles for insurers, providers, and, especially, consumers?**
- **What are the implications for innovators?**



Drivers (or Inhibitors) of Efficiency

Increasingly Sophisticated Product Assessment and Purchasing

FDA

Biosimilars and breakthroughs

Insurers

Coverage policy and payment methods

Providers

Supply chains and Centers of Excellence

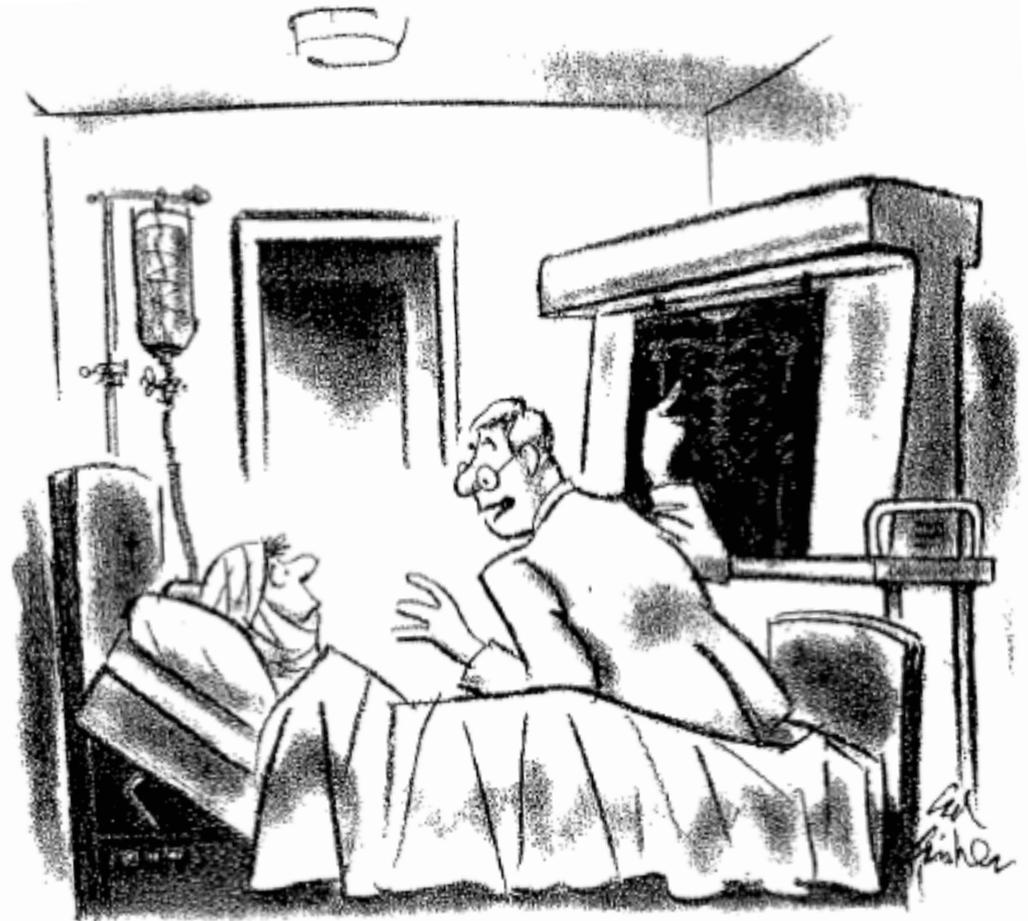
Consumers

Cost sharing and patient engagement

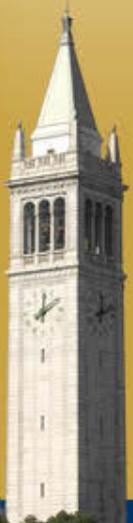
Implications for Innovators



Insurers as Purchasers: Coverage and Payment



“You don’t know how lucky you are! A quarter of an inch either way, and it would have been outside the area of reimbursable coverage!”



Insurers: Focus on Static Efficiency

- COVERAGE:
 - Public and private insurers have focused on comparing products to identify which are similar and can be substituted (for lower reimbursement)
 - The essence of HTA (from payer perspective) is to counter manufacturer claims that their products are distinct (not therapeutic substitutes)
- REIMBURSEMENT:
 - Lower levels of payment create pressures on providers and producers to reduce waste and increase (static) efficiency
 - New methods of payment change incentives for providers, from encouraging to discouraging adoption of costly innovation



How Can Insurers Promote Dynamic Efficiency?

1. Coverage policy: Make it easier for new treatments to get on the market but also easier to be removed
 - Coverage with evidence development (CED)
 - Active surveillance, registries, Phase IV trials
 - Safe use requirements (REMS)
2. Payment policy: Protect providers from the high and unexpected costs of innovation
 - Extend new technology add-on payments (NTAP) to more devices and drugs, and from DRGs to episode payment methods
 - Rely on “shared savings” rather than capitation with ACOs and other provider organizations

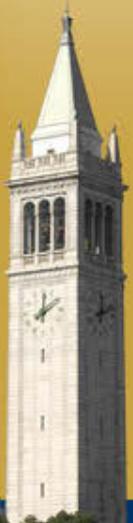


Hospitals and Physicians as Purchasers:

Adoption and Utilization



“In your case, Dave, there’s a choice—elective surgery, outpatient medicinal therapy, or whatever’s in the box that our lovely Carol is holding.”



Providers Focus on Static Efficiency

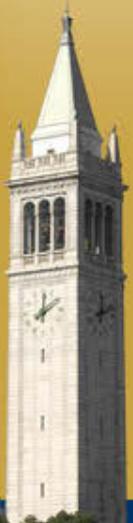
- The principal focus of hospitals and ACOs today is on the reduction in price and use of costly technology, including drugs, devices, and imaging equipment, given the pressures from insurers and consumers for lower hospital prices
 1. Supply chain management
 2. Pricing strategies for technology



1. Supply Chain Management

Hospitals Become Sophisticated Purchasers

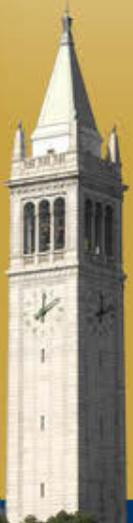
- Assessment of product performance
 - Establish physician-management committees for technology assessment and adoption
- Account management relationships
 - Reduce number of device vendor relationships
 - Increase average term (years) of contracts
- Physician alignment
 - Employment or joint venture
 - Improve physician compliance with contracts
 - Challenge problems with vendor “upselling”
 - Counter physician “conflicts of interest”



2. Pricing Strategies for Technology

Payment based on performance and competition

- Pricing strategy for **established** products
 - Product matrix with price caps
 - Limit device price to defined percentage of procedure revenue
- Pricing strategy for **“innovative”** products
 - List price as worst case
 - Percent discount off list price
 - Same price as for established device, unless manufacturer provides evidence of superiority (shifting burden of proof)



How Can Providers Promote Dynamic Efficiency?

1. Centers of Excellence (COE)
 - Bundled pricing with warranty
 - Guarantee of clinical appropriateness
 - Quality reporting and improvement
2. Technology-intensive service lines offer the greatest prestige and highest margins
 - Spine, joint, and cancer institutes
 - Specialty heart and surgical hospitals
3. Travel medicine
 - Regional and global competition

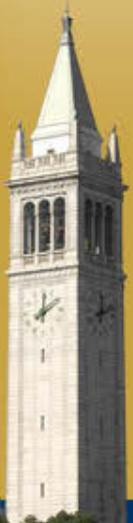


**Consumers as
Purchasers:**

**Cost Sharing
and
Engagement**



***“The gentleman at the other register would
like to cover your co-pay.”***



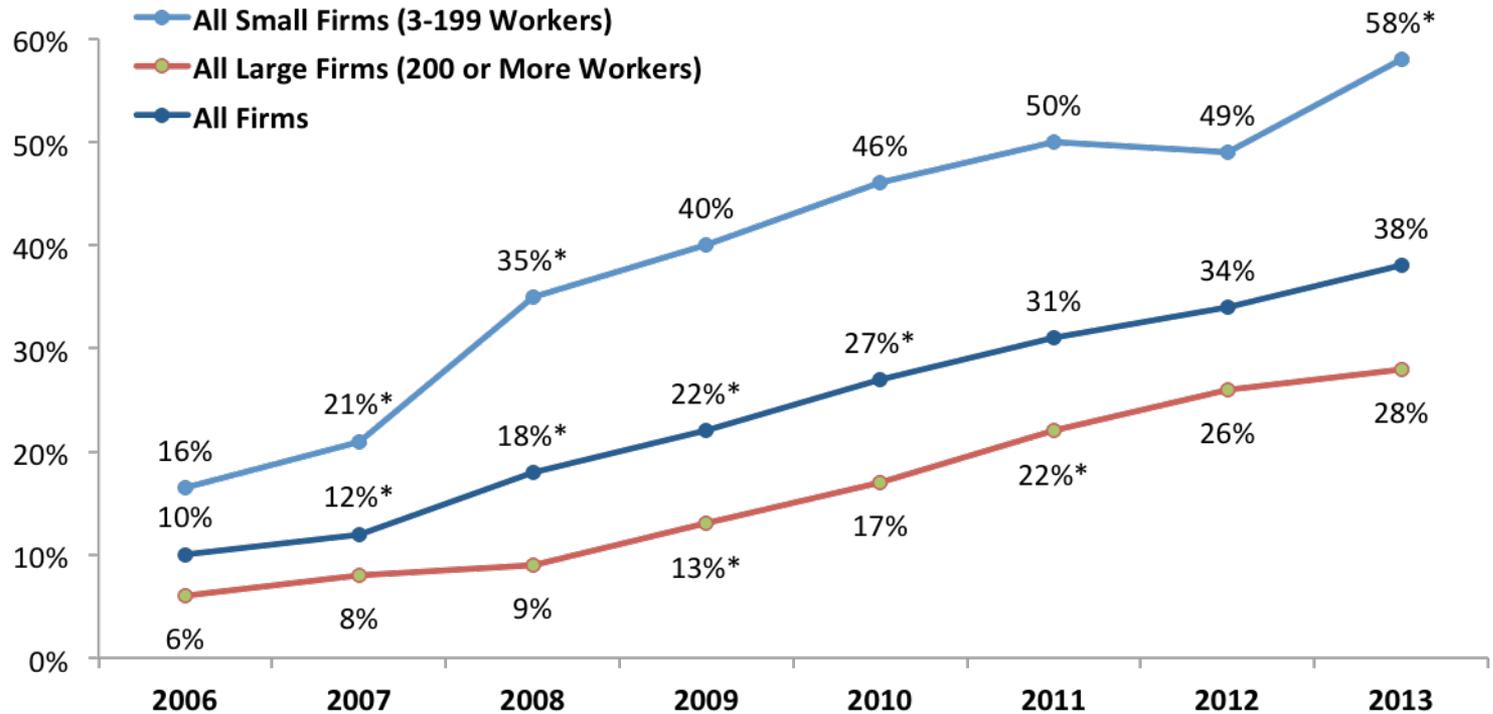
Consumer Choices Focus on Static Efficiency

- The goal of benefit design today is largely to move utilization to lower-priced products and reduce use of less appropriate services
- These goals increase static efficiency but reduce incentives for investments in R&D
- Prominent examples include:
 1. High deductible health plans
 2. Tiered formularies
 3. Reference pricing for surgery



1. High Deductible Health Plans

HDHPs Require Patients to Pay Initial \$1,000-\$5,000 in Costs Incurred

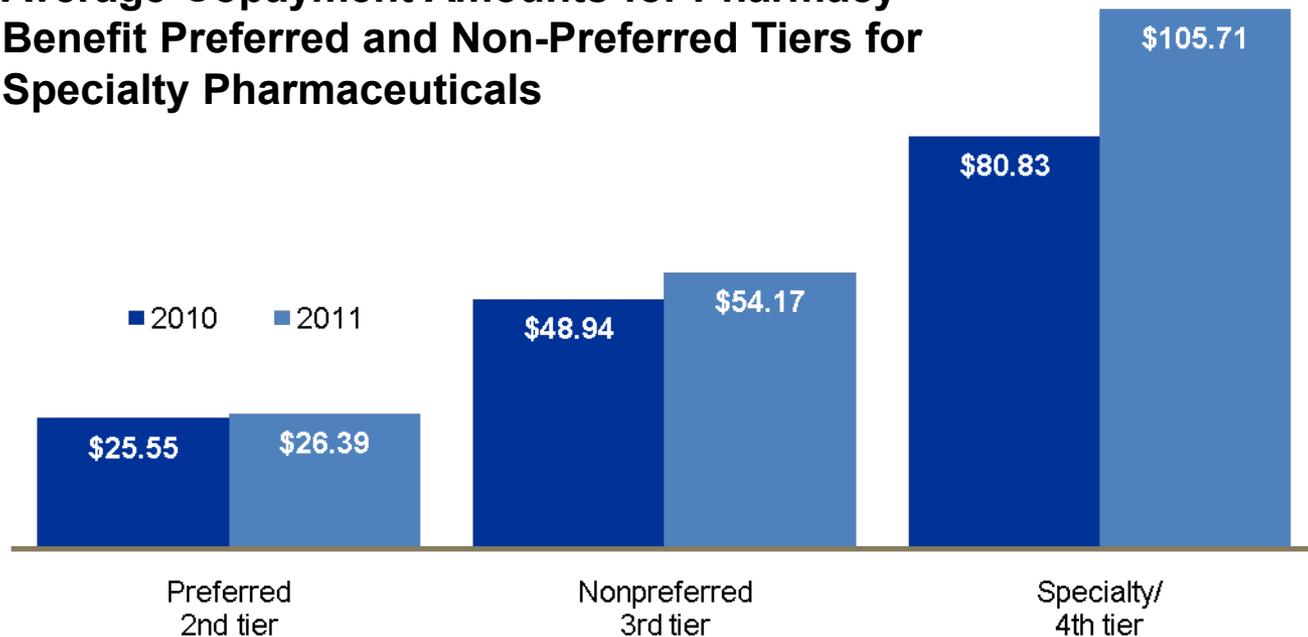


Percentage of Covered Workers Enrolled in a Plan with a Deductible of \$1,000 or More for Single Coverage

2. High Cost Sharing for Specialty Drugs

- Main goal of tiered formularies is to encourage use of generic drugs and preferred (discounted) brands
- New focus on specialty drugs for cancer, MS, immune conditions

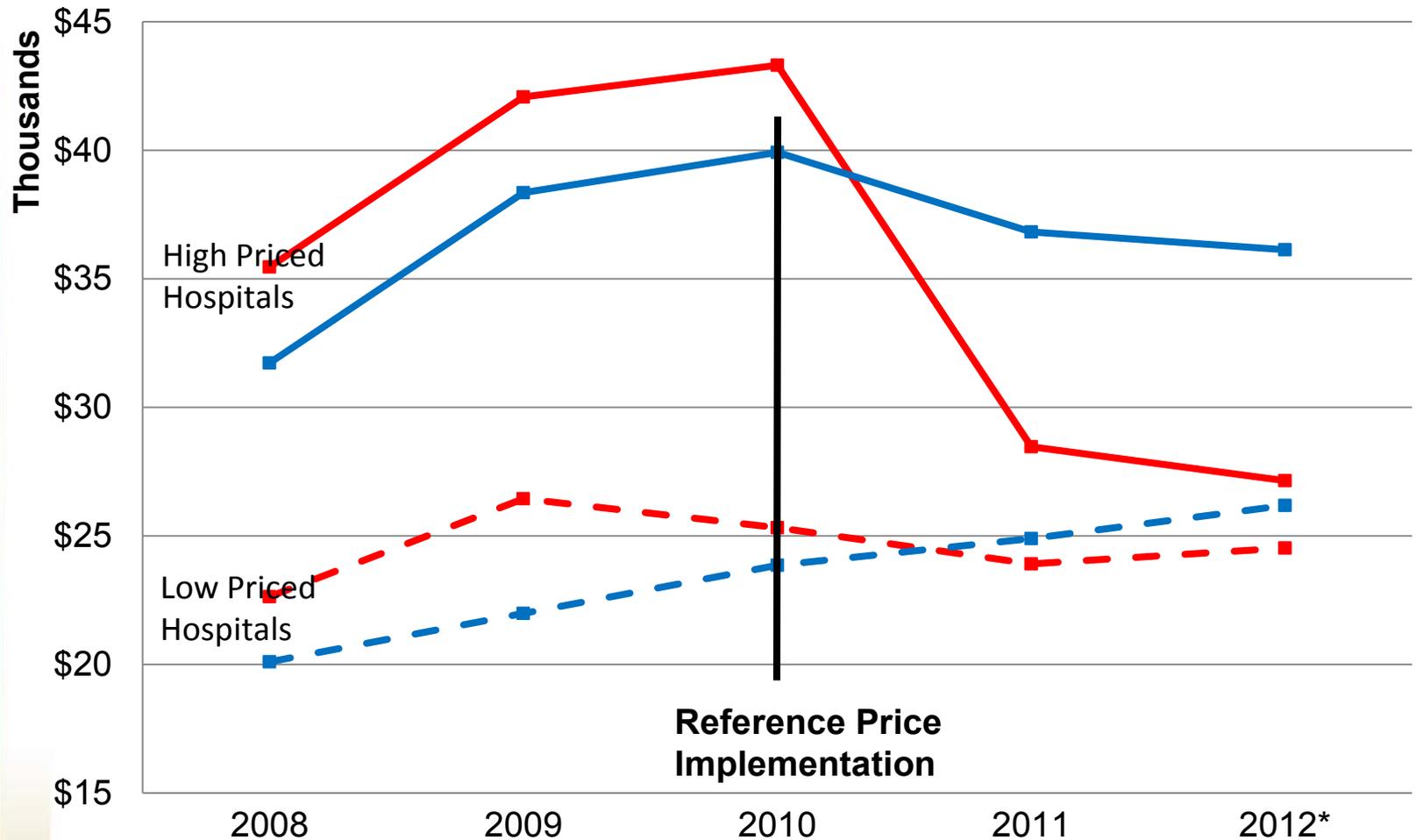
Average Copayment Amounts for Pharmacy Benefit Preferred and Non-Preferred Tiers for Specialty Pharmaceuticals



Source: Health Strategies Group, Specialty Pharmacy Management, December 2010.

3. Reference Pricing for Major Procedures

Prices Paid for Orthopedic Surgery



Robinson JC, Brown TT. Increases in Consumer Cost Sharing Redirect Patient Volumes and Reduce Hospital Prices for Orthopedic Surgery. *Health Affairs* 2013; 32(8):1392-97.

How Can Consumer Choice Promote Dynamic Efficiency?

- Consumers need tools and incentives to distinguish high-value from low-value health care products and programs
- Consumers want to reduce their spending, but are willing to pay higher prices for higher-value options
- This creates a market reward for innovation, while allowing less innovative products and programs to compete on price
- The challenge is to foster **informed and engaged** consumer decision-making



Price and Quality Transparency

Company and Product	Information Offered	Platform
<p>Castlight Health</p> 	<ul style="list-style-type: none"> • Price transparency – flagship firm • Plan benefit information for consumers • Employer analytics 	<ul style="list-style-type: none"> • Varied: web tools, delivered insights, mobile tools for employees
<p>Aetna iTriage</p> 	<ul style="list-style-type: none"> • Price comparison information from Healthcare Bluebook • Healthcare services information • Adding new services in future 	<ul style="list-style-type: none"> • Mobile integrated data platform, including an app
<p>UnitedHealthcare MyEasyBook</p> 	<ul style="list-style-type: none"> • Online health care shopping tool for consumers with high-deductible plans 	<ul style="list-style-type: none"> • Integrated in with members' claims, transparency tools, and in-network providers
<p>Guroo</p> 	<ul style="list-style-type: none"> • Cost information for over 70 common health conditions and services based on claims data from four major insurers 	<ul style="list-style-type: none"> • Consumer-facing website • Has received Medicare data as a “qualified entity”
<p>Health in Reach</p> 	<ul style="list-style-type: none"> • Comparison of licensed providers, including doctors and dentists • Discounts and deals • Online appointment system 	<ul style="list-style-type: none"> • Consumer-facing website • Providers can sign up to create a profile

Information Coupled with Active Outreach

Company and Product	AIM Specialty Health Specialty Care Shopper Program 
History	<ul style="list-style-type: none"> • Began as American Imaging Management, a radiology benefit management company • Acquired by WellPoint in 2007 • Current services expand beyond radiology
Approach	<ul style="list-style-type: none"> • Through the Specialty Care Shopper Program, an AIM specialist proactively contacts a health plan member once a service (e.g. an MRI or CT) has been approved if there is a high-quality, lower-cost site-of-care option available within their local community • If the member decides to accept the recommendation, AIM assists the member in scheduling the appointment
Rationale	<ul style="list-style-type: none"> • The cost of a given procedure can vary widely across providers and care delivery settings within the same geographic area • Giving patients information may help them select lower-cost options
Results	<ul style="list-style-type: none"> • Since its implementation in one market in 2011, AIM has redirected more than 4,900 cases, at an average cost savings of \$950 per case • A study published in Health Affairs found that for patients needing MRIs, the AIM program resulted in a \$220 cost reduction (18.7%) per test and a decrease in use of hospital-based facilities from 53 percent in 2010 to 45 percent in 2012

Sources: <http://www.aimspecialtyhealth.com/solutions/management-solutions/member-management>;
 Sze-jung Wu, Gosia Sylwestrzak, Christiane Shah and Andrea DeVries, "Price Transparency For MRIs Increased Use Of Less Costly Providers And Triggered Provider Competition," *Health Affairs*, 33, no.8 (2014):1391-1398

Decision Support

Company	<p style="text-align: center;"> Optum (UnitedHealth Group)  </p>	
Product	Emergency Room Decision Support	Treatment Decision Support
Goal	<ul style="list-style-type: none"> Engage health plan members after each emergency room visit to address factors that drive inappropriate ER use 	<ul style="list-style-type: none"> Connect members with the right treatment, right provider, right medication, and right lifestyle
Approach	<ul style="list-style-type: none"> Identifies and engages individuals after each emergency room visit – up to five times during the course of a year Leverages both “live” nurses and automated voice call technology to engage consumers Refers to case and disease management programs and behavioral health services Connects individuals with primary care providers (including appointment scheduling) 	<ul style="list-style-type: none"> Connects members with specially trained nurse “coaches” who address a consumer’s immediate symptom in addition to issues that impact their quality of life and care <ul style="list-style-type: none"> Right treatment — guidance on when and where to seek care Right provider — scheduling appointments with high-quality network providers Right medication — coaching on lower cost options, drug interactions and appropriate use Right lifestyle — referring to wellness and behavioral health services
Results	<ul style="list-style-type: none"> Individuals who were engaged by ER Decision Support had a decrease in avoidable ER visits, while individuals who did not participate had an increase in avoidable visits (2007-2008) 	<ul style="list-style-type: none"> 2-to-1 average return on investment 70 percent of callers with ER pre-intent avoid the visit after a Optum NurseLine call 8.8 hours reduced absenteeism per employee/per event

Sources: <https://www.optum.com/health-plans/clinical-management/member-support/clinical-care-management/navigate-care-options/emergency-room-decision-support.html>; <https://www.optum.com/health-plans/clinical-management/member-support/clinical-care-management/navigate-care-options/treatment-decision-support.html>

Navigation and Care Management

Company and Program	Patient Population	Target Patients	Results
Aetna Medicare Advantage Provider Collaboration Program	<ul style="list-style-type: none"> • Medicare patients • National program 	<ul style="list-style-type: none"> • Risk score • Frequent admission/ER visits • Predictive algorithm for readmission • High-risk diagnoses • Advanced illness predictive algorithm (risk of death in 12 months) 	<ul style="list-style-type: none"> • In first year, decreased admissions by 38%, decreased ER visits by 28%, and decreased total cost by 19%
Geisinger ProvenHealth Navigator	<ul style="list-style-type: none"> • All payer types • Pennsylvania 	<ul style="list-style-type: none"> • Risk score • Referral 	<ul style="list-style-type: none"> • Over four years, decreased admission rates by 18% and decreased total expenditures by 8% • No change in ER visits
Sutter Care Coordination Program	<ul style="list-style-type: none"> • Commercial and Medicare patients • California 	<ul style="list-style-type: none"> • Referral • Any one of the following: <ul style="list-style-type: none"> • Unplanned readmission within 30 days • Two or more admissions in past year • Two or more ED visits in past year • Seven or more medications • Diagnosis of CHF, COPD, or pneumonia • Three or more chronic conditions 	<ul style="list-style-type: none"> • Decreased 30-day readmission rate by 5.7% (year 1) • Decreased ER visits per 1,000 patients by 699 visits vs. baseline • Decreased PCP costs by 20%, decreased specialist costs by 48%, decreased acute care costs by 48%, and decreased ED visit costs by 38%

Source: Clemens S. Hong, Allison L. Siegel, and Timothy G. Ferr, *Caring for High-Need, High-Cost Patients: What Makes for a Successful Care Management Program?* (The Commonwealth Fund, Issue Brief, August 2014)

What Does This All Mean for Innovators?

Design

- Developers need to focus on either “breakthrough” or “good-enough” technologies, both of which offer value

Pricing

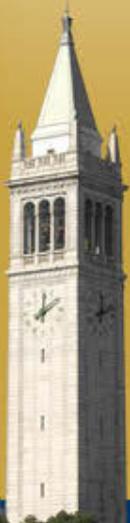
- Premium pricing requires premium evidence
- Follow-on devices must price at parity or discount

Sales and distribution

- From physician detailing in the OR and on the golf course to evidence-based account management

Consumer Focus

- Patients as informed and price-sensitive consumers





“Geez Louise—I left the price tag on.”

PURCHASING MEDICAL INNOVATION



THE RIGHT TECHNOLOGY, FOR THE
RIGHT PATIENT, AT THE RIGHT PRICE

JAMES C. ROBINSON