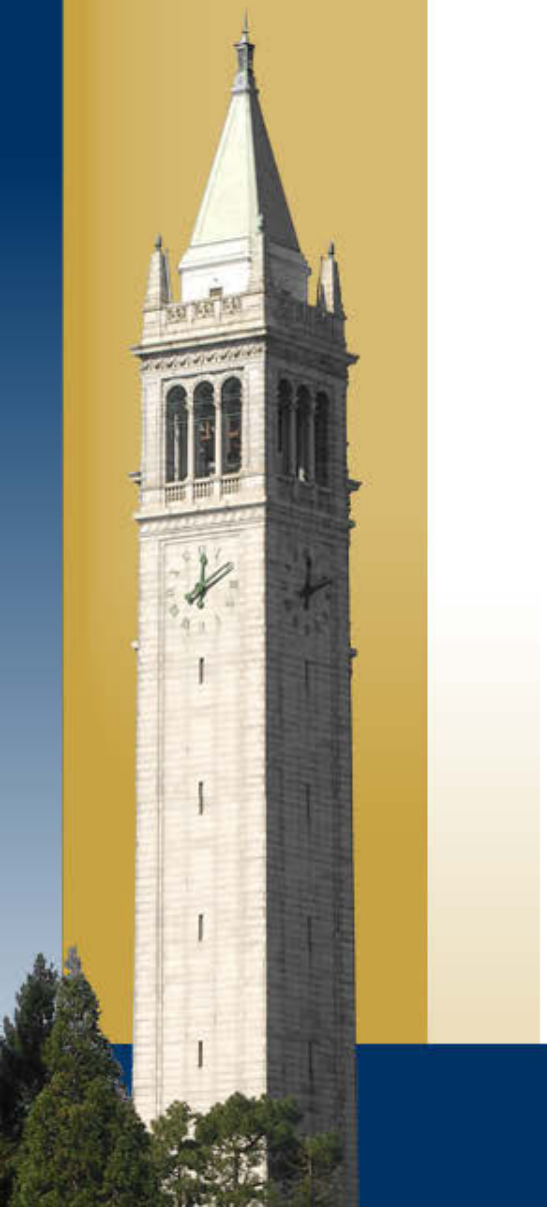


BERKELEY CENTER
FOR HEALTH TECHNOLOGY

Reference Pricing in Health Insurance

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

Overview

- Reference pricing: why, what, where?
- Example: colonoscopy
- Range of impacts on prices
- Extrapolations
- Price transparency & decision support

Why Reference Pricing?

- The geographic variations in expenditures per employee are due mainly to variations in prices, not in volume of use

- This contrasts with expenditure variation for Medicare, as documented by Dartmouth, which is due to variations in use not price

What Drives Price Variation?

- In most sectors, variation in price is due to variation in quality, convenience, performance
- In health care, variation in price also is due to factors on the supply side:
  - Manufacturers: patent protection
  - Providers: market consolidation
- The variation in price is permitted by factors on the demand side
  - Consumers lack incentive to shop, as someone else is paying (insurer, employer)
  - Consumers lack information on prices and quality at the time of making choices

What is Reference Pricing?

- Sponsor establishes a ***maximum contribution*** (reference price) it will make towards paying for a particular service or product
  - This limit is set at some point along the observed price range (e.g., 60th percentile)
- Patient must ***pay the full difference*** between this limit and the actual price charged by the provider
  - Patient payment is not limited by OOP max
  - Provider price is the negotiated “allowed charge” not the arbitrary list price
- Patient chooses his/her cost sharing by choosing his/her service or provider
  - Patient has good coverage for low priced options but ***full responsibility for choice***

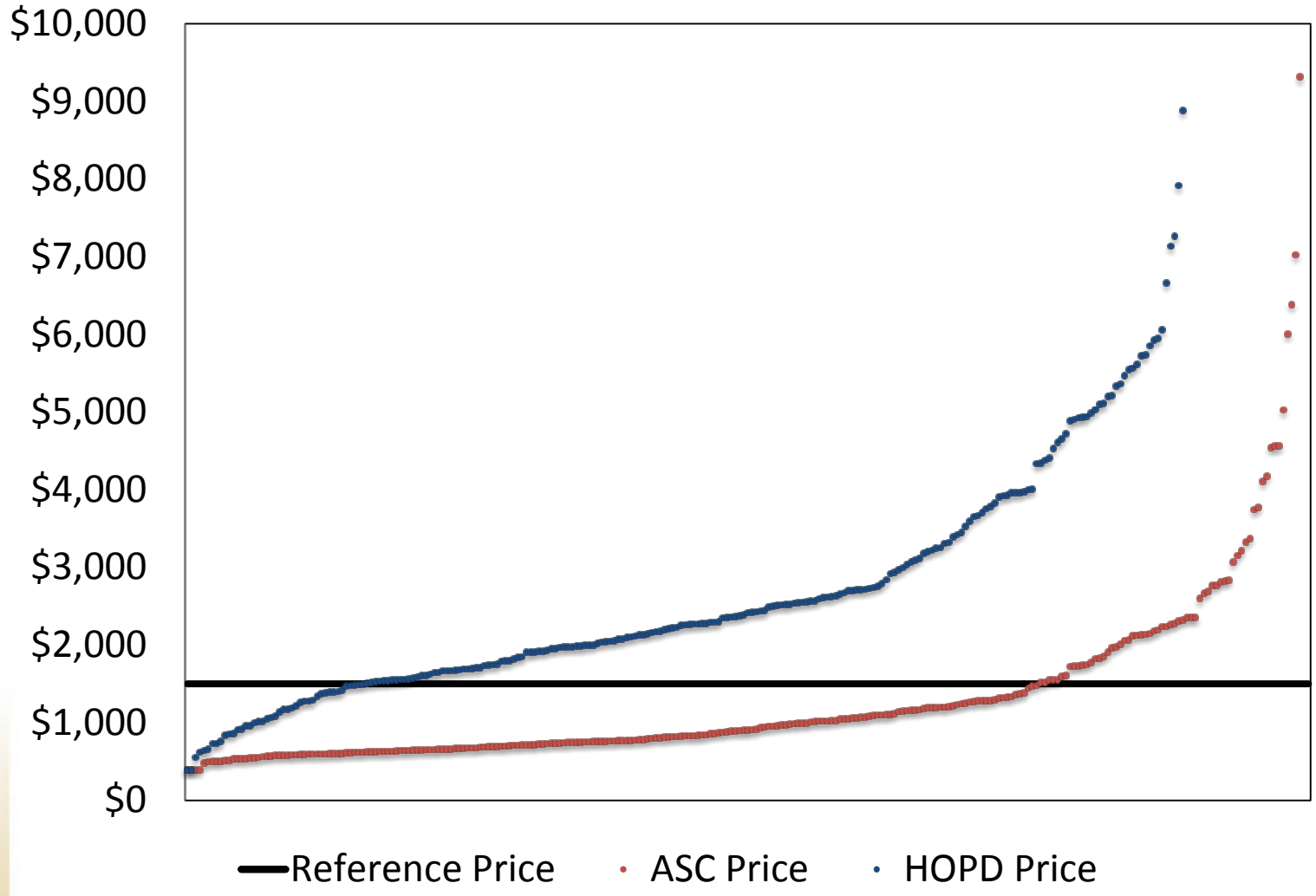
Data and Methods

- Results that follow are from studies at UCB using claims data from self-insured employers, with comparison claims data from Anthem Blue Cross
- Methods: bivariate (trends over time) and multivariate (difference-in-difference regressions)
- Endpoints:
  - Range in prices prior to implementation
  - Consumer choice of low-price v. high-price facility
  - Average price paid (includes effect of switching providers and effect of price reductions)
  - Spending by employer and employee
  - Surgical complications (some procedures)
- Publications: Health Affairs (2), JAMA Internal Medicine (2), J Bone & Joint Surgery, Medical Care

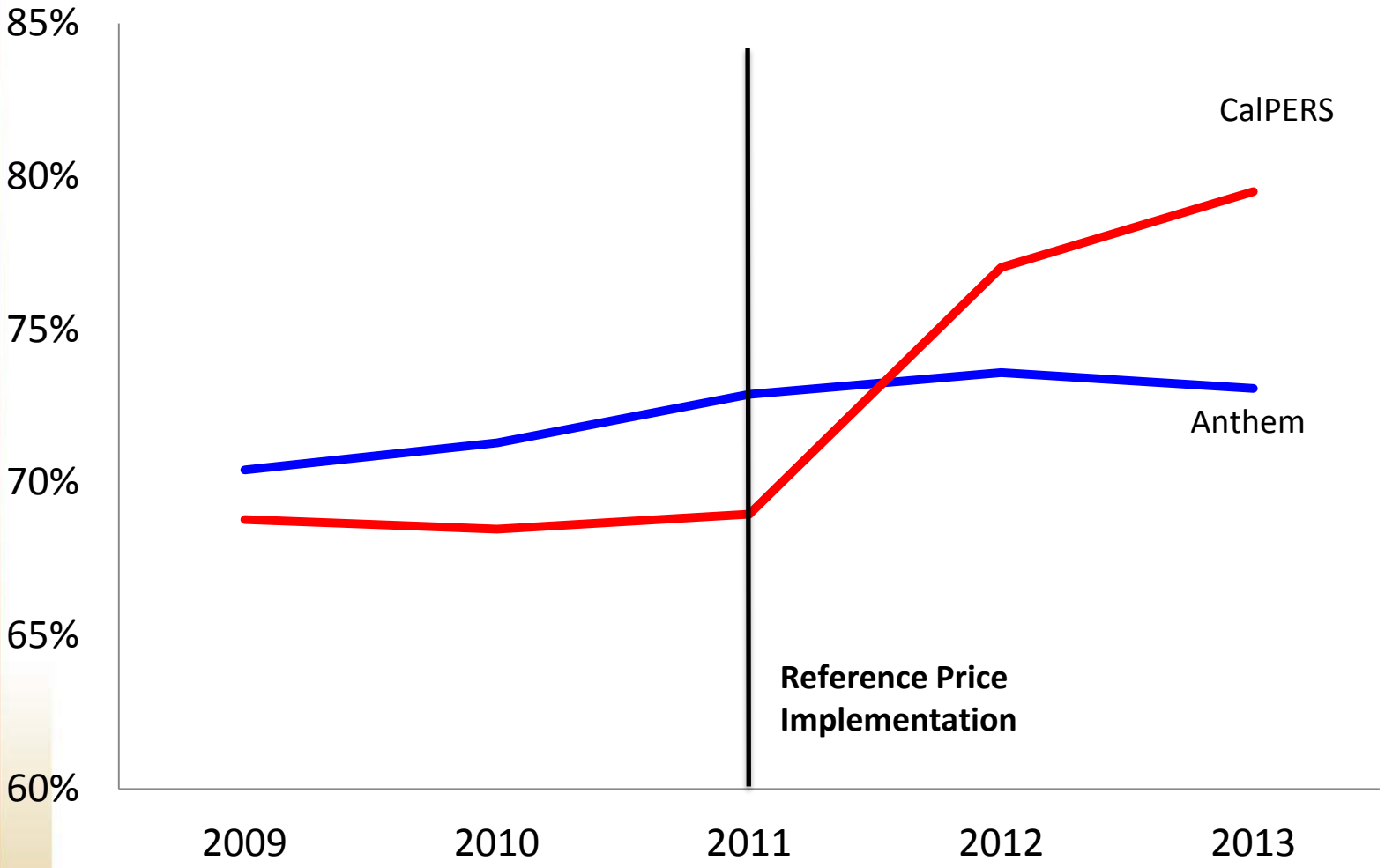
Example: Reference Pricing for Colonoscopy

- In 2011 PERS expanded reference pricing to ambulatory procedures, with intent of convincing beneficiaries to select lower-price ambulatory surgery centers (ASC) over hospital outpatient departments (HOPD)
- Reference price was set for HOPD at average price for ASC

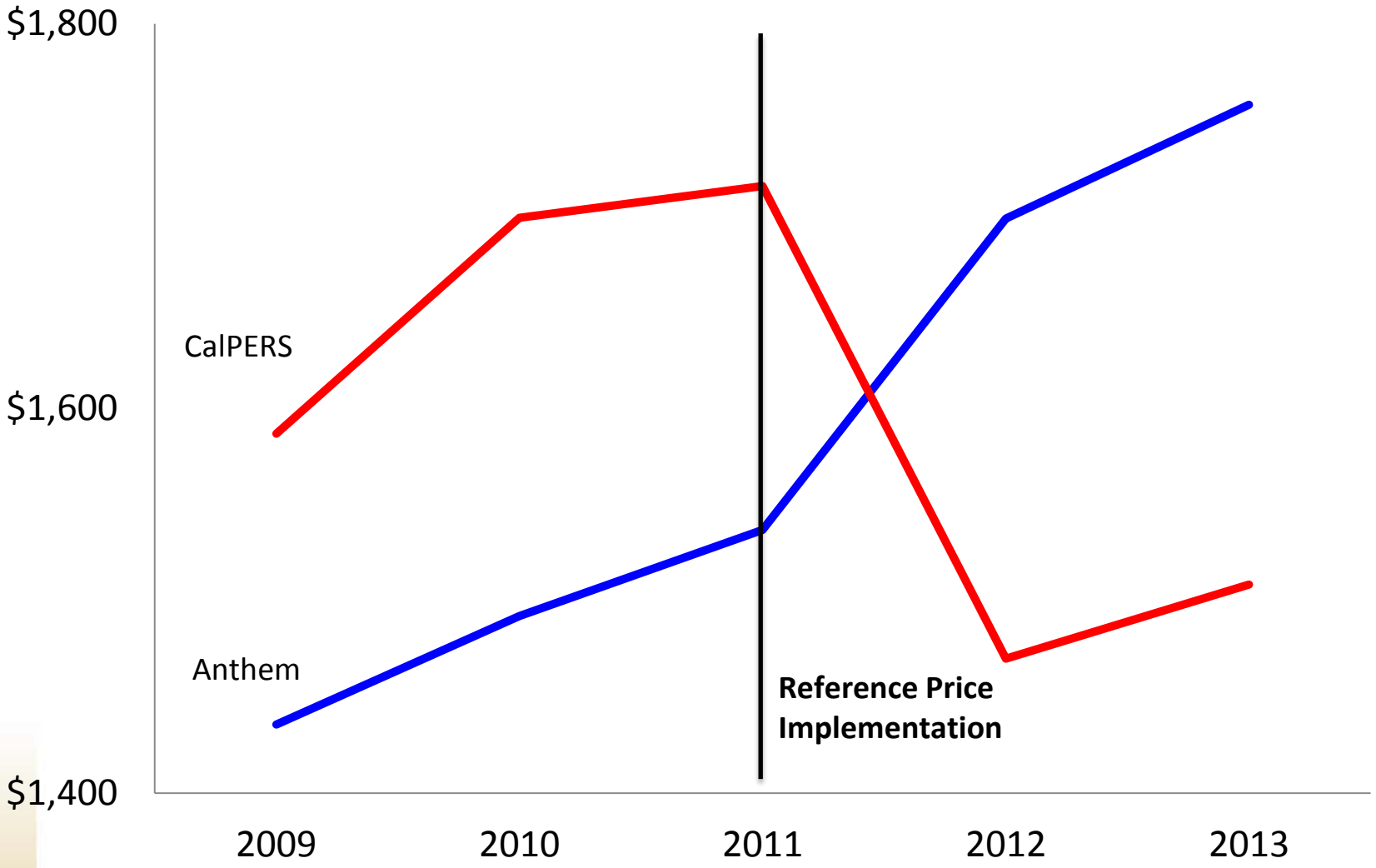
Range in Colonoscopy Prices Across California HOPDs and ASCs in 2011



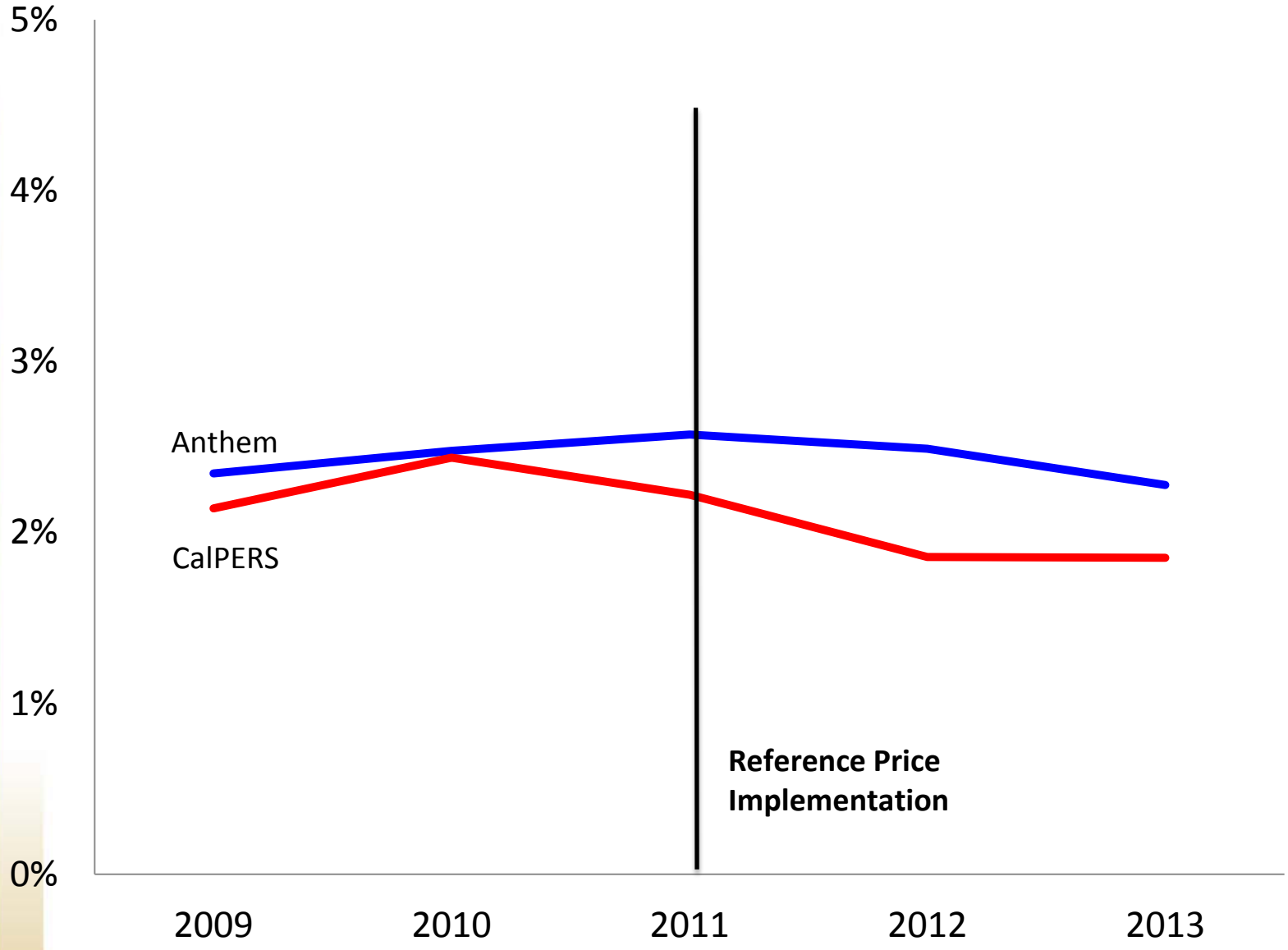
Percentage of Colonoscopy Patients Choosing ASC over HOPD before and after Implementation of Reference Pricing



Average Price (Allowed Charge) for Colonoscopy Before and After Implementation of Reference Pricing



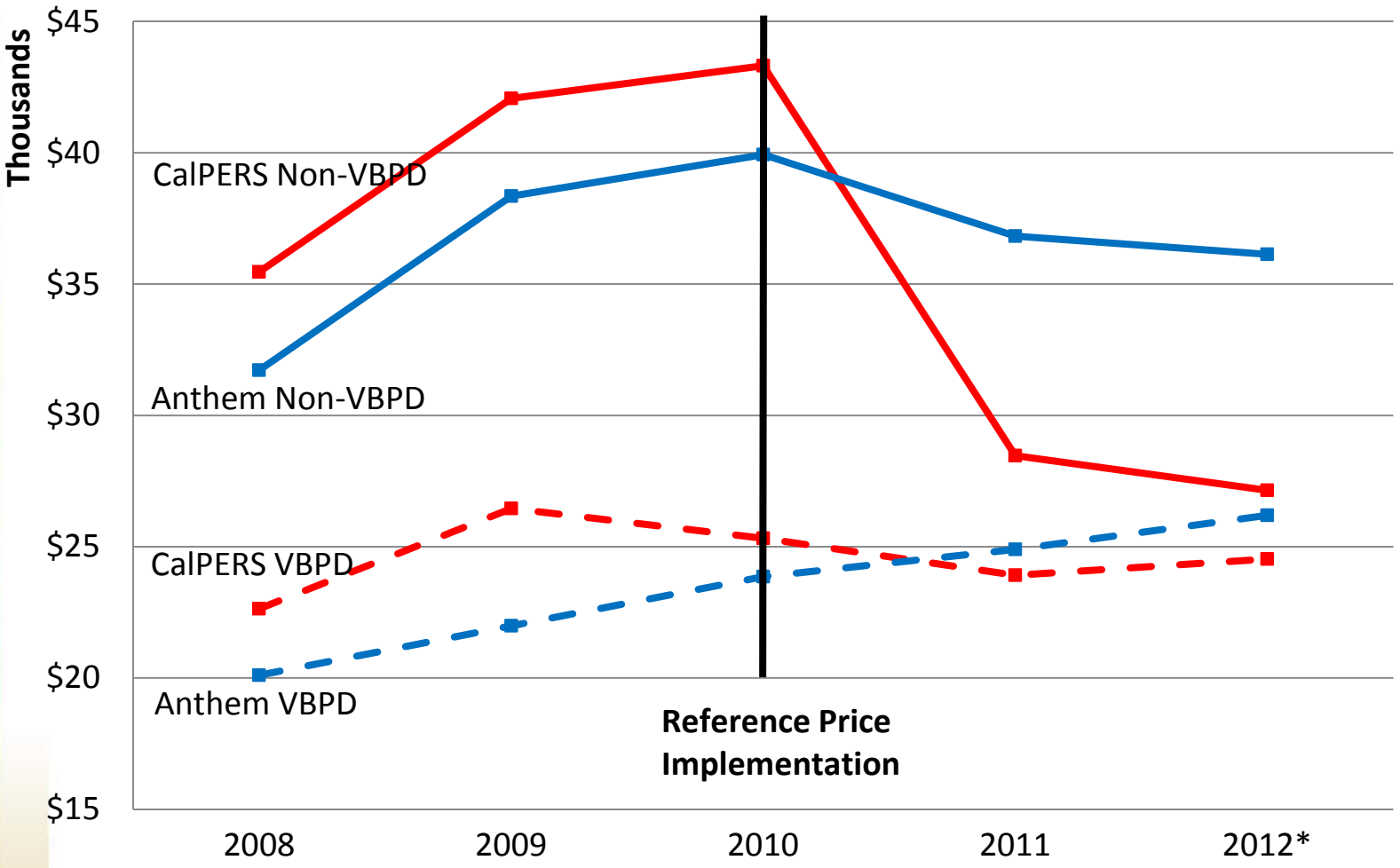
Rate of Surgical Complications for Colonoscopy Before And After Implementation of Reference Pricing



Expansion

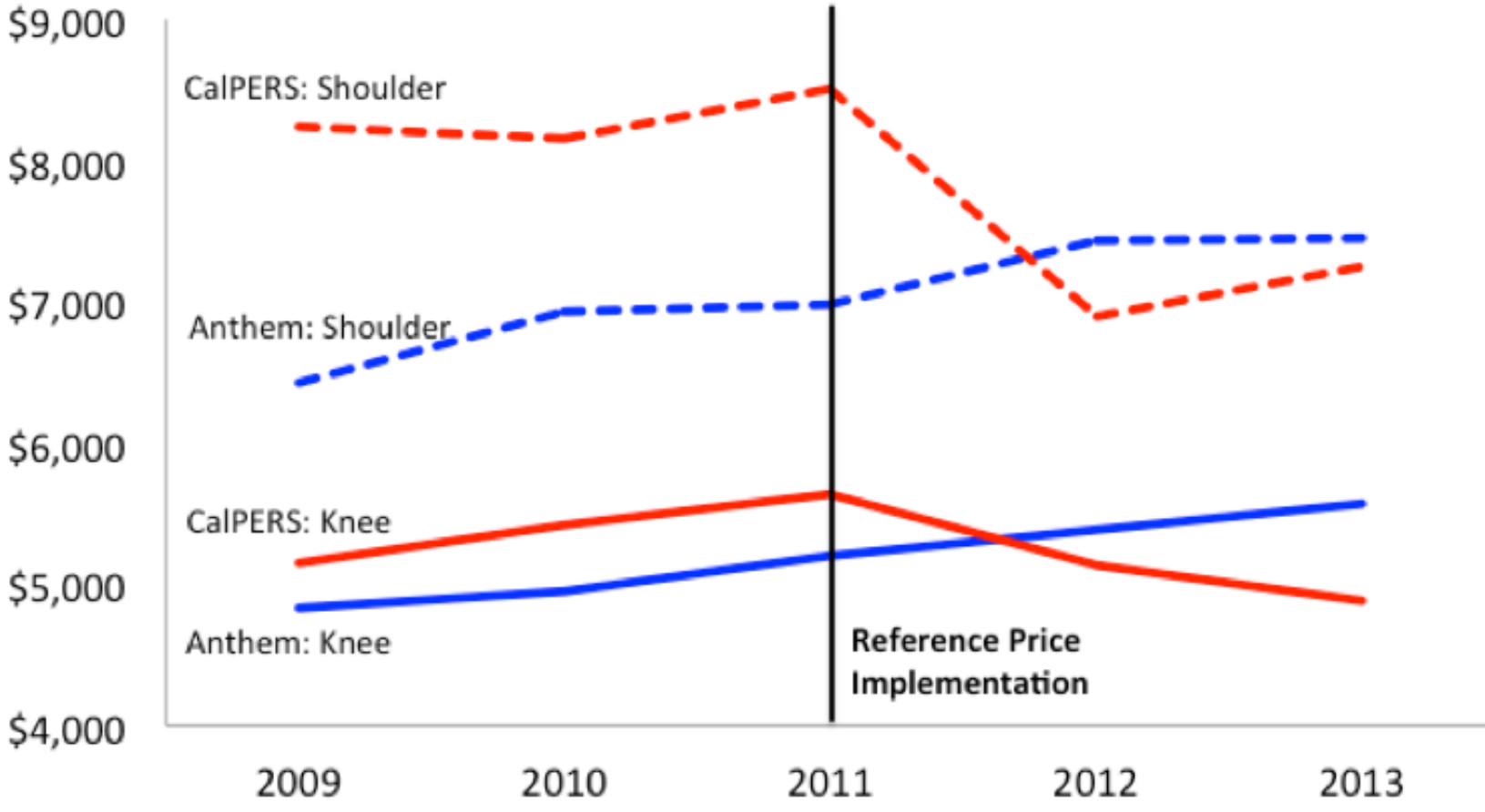
- Reference pricing has been applied to services with large variation in price but little variation in quality
  - Inpatient surgery procedures
  - Ambulatory surgery procedures
  - Laboratory tests
  - Imaging procedures
  - Drugs
- In every case, reference pricing has led to significant gains in market share for designated (low-priced) providers and significant reductions in spending

Prices for Knee and Hip Replacement Surgery before and after the Implementation of Reference Pricing

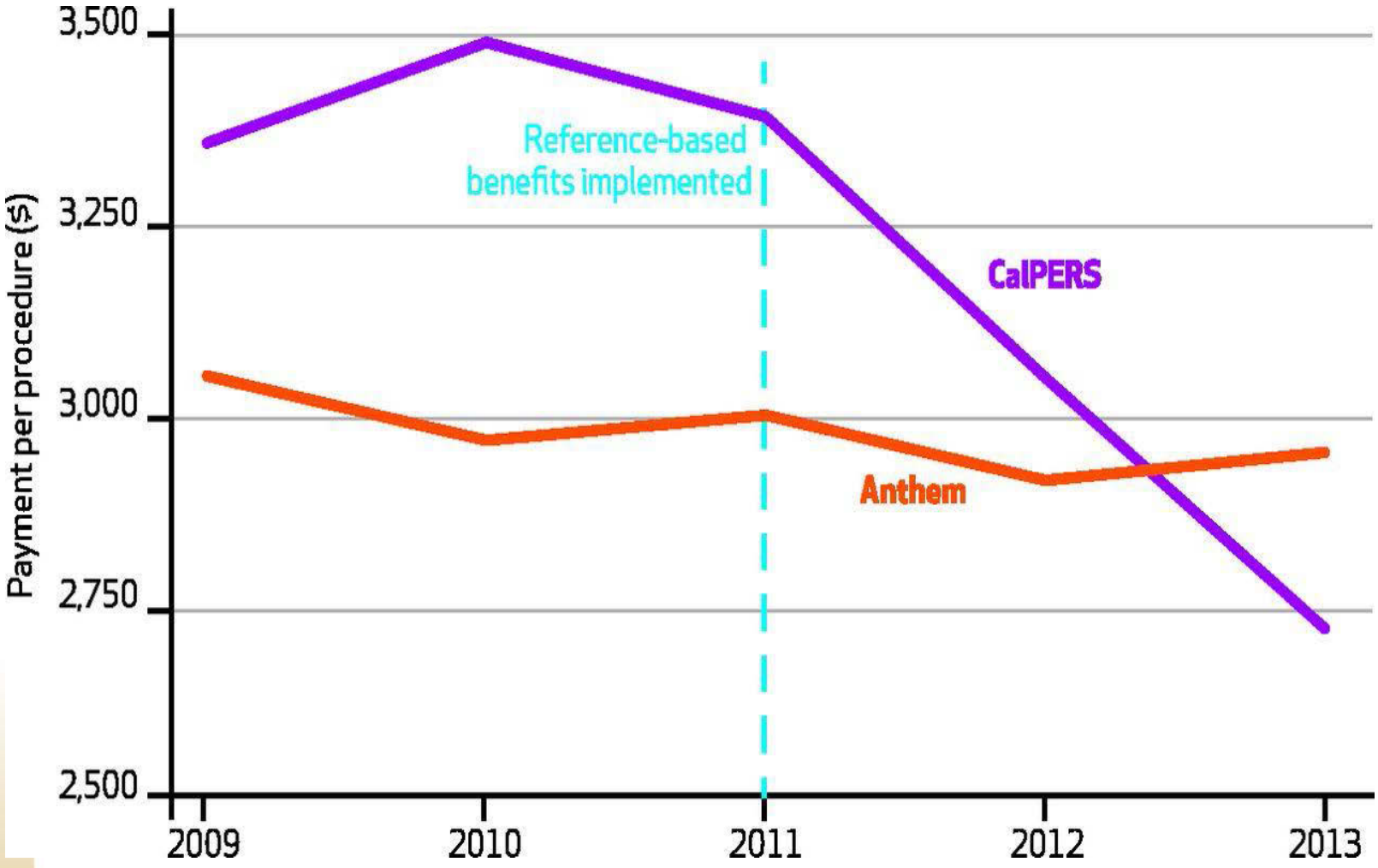


Source: California Public Employees Retirement System (CalPERS) and Anthem Blue Cross.
All prices in 2011 dollars. VBPD : Value Based Purchasing Design. *Through September of 2012

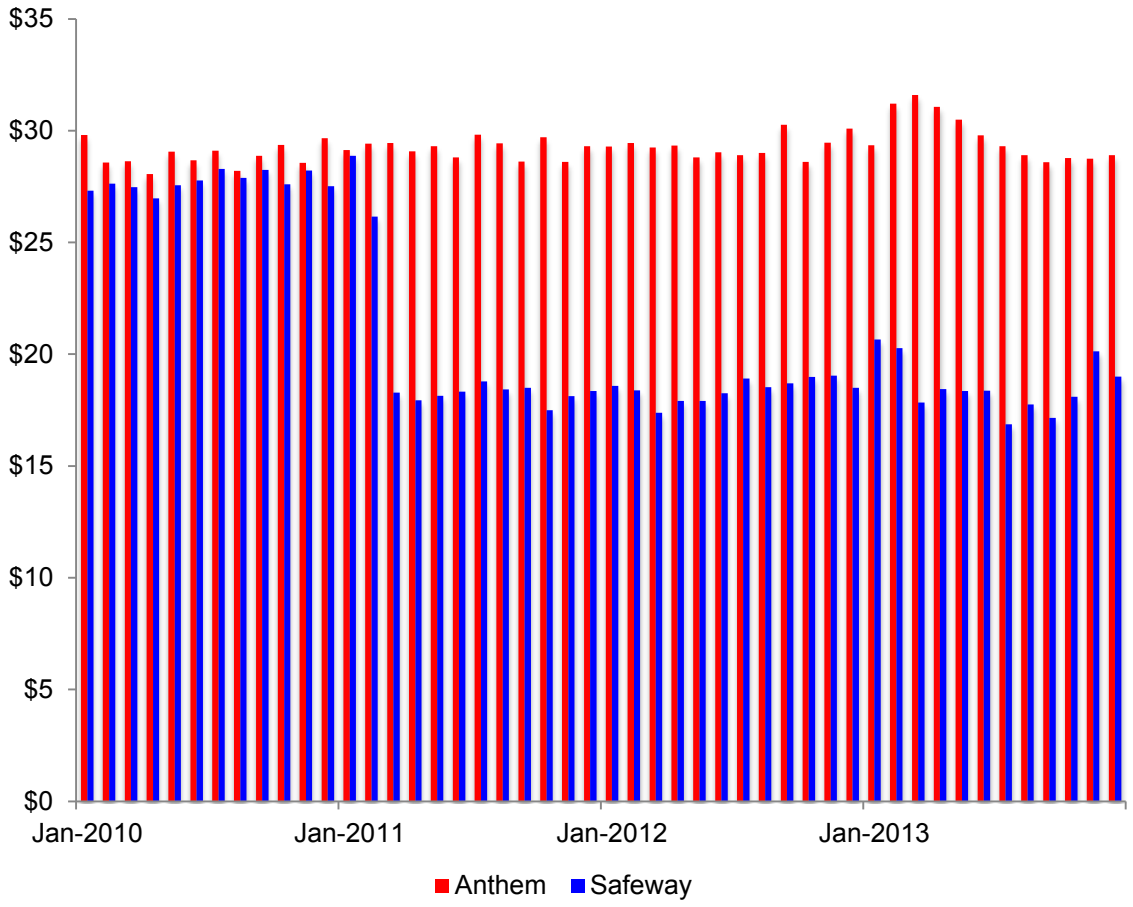
Price Paid per Procedure per Before and After Implementation of Reference Pricing: Knee and Shoulder Arthroscopy



Price Paid Per Cataract Surgery Procedure, Before And After Implementation Of Reference Pricing



Average Prices Paid for 285 Types of Diagnostic Tests, Before and After Implementation of Reference Pricing

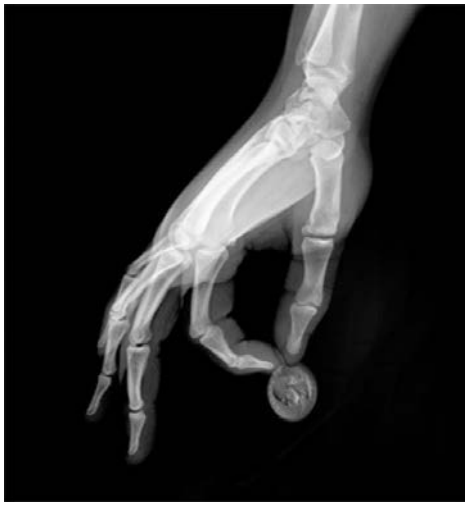


Impact of Reference Pricing on Consumer Choices, Prices Paid, and Potential Spending Reductions for Commercially Insured Individuals

	Percentage point increase in use of low-price facilities	Percent reduction in price paid per procedure or test	Total spending by commercially insured individuals in the US ($Billion)	Potential spending reduction from reference pricing ($Billion)
Joint replacement	14.2	19.8	17.09	3.38
Arthroscopy of the knee	14.3	17.6	5.70	1.00
Arthroscopy of the shoulder	9.9	17.0	3.80	0.65
Cataract removal	8.6	17.9	1.90	0.34
Colonoscopy	17.6	21.0	11.39	2.39
Laboratory tests	18.6	32.0	23.73	7.59
Imaging: CT scans	9.0	12.5	17.09	2.14
Imaging: MRI procedures	16.0	10.5	19.93	2.09
Total	NA	NA	100.62	19.59

Challenge for Reference Pricing: Price Transparency and Decision Support

- Which forms of comparative price and performance data are needed by consumers facing reference pricing?
- Can information be combined with more active outreach?
- How can consumers be helped to make the best decisions?



Price and Quality Transparency

Company and Product	Information Offered	Platform
Castlight Health	• Price transparency – flagship firm • Plan benefit information for consumers • Employer analytics	• Varied: web tools, delivered insights, mobile tools for employees
Aetna iTriage	• Price comparison information from Healthcare Bluebook • Healthcare services information • Adding new services in future	• Mobile integrated data platform, including an app
UnitedHealthcare MyEasyBook	• Online health care shopping tool for consumers with high-deductible plans	• Integrated in with members' claims, transparency tools, and in-network providers
Guroo	• Cost information for over 70 common health conditions and services based on claims data from four major insurers	• Consumer-facing website • Has received Medicare data as a "qualified entity"
Health in Reach	• Comparison of licensed providers, including doctors and dentists • Discounts and deals • Online appointment system	• 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	• Began as American Imaging Management, a radiology benefit management company • Acquired by WellPoint in 2007 • Current services expand beyond radiology
Approach	• 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	• 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	• 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

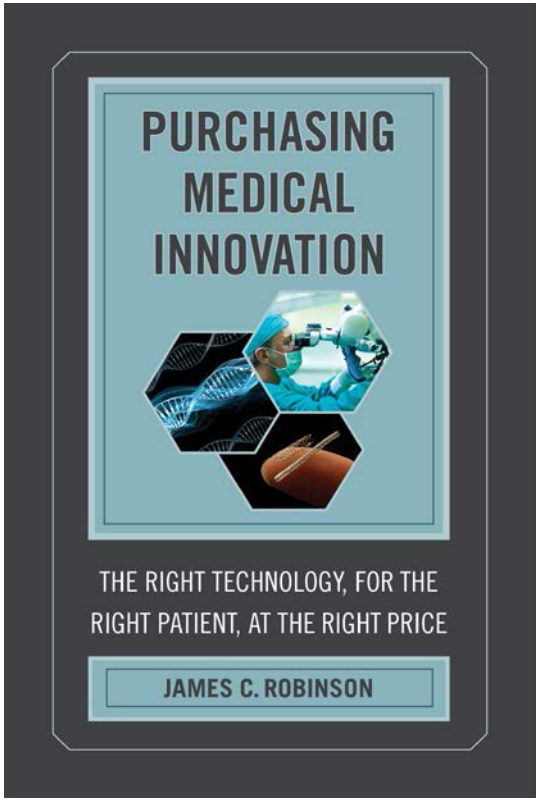
Decision Support

Company	Optum (UnitedHealth Group)	
Product	**Emergency Room Decision Support**	**Treatment Decision Support**
Goal	• Engage health plan members after each emergency room visit to address factors that drive inappropriate ER use	• Connect members with the right treatment, right provider, right medication, and right lifestyle

Approach	• 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)
		• 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
		  • 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	• 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)	• 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



"Geez Louise—I left the price tag on."