



BERKELEY CENTER
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Changes in Patient Volumes, Allowed Charges, Consumer Cost Sharing, and CalPERS Payments for Orthopedic Surgery Associated with Reference Pricing

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Outline

- **Study Design**
- **Results**
 - Choice of hospital (market shares)
 - Hospital pricing per case
 - Value Based Purchasing Design (VBPD) facilities
 - Non-VBPD facilities
 - Consumer cost sharing per case
 - Total savings to CalPERS



Study Design

- **Outcome measures:**
 - Change in consumer choice of hospital
 - Change in hospital pricing
 - Change in consumer cost sharing
 - Change in expenditures for CalPERS
- **Data: facility claims for CalPERS Anthem PPO enrollees**
- **Control group: non-CalPERS Anthem enrollees**
- **Dates studied: 2008-2012**
- **Econometric adjustment for demographics, disease severity, hospital markets**



Volume of Knee and Hip Replacement Surgery in VBPD Facilities and non-VBPD Facilities: 2008-2012

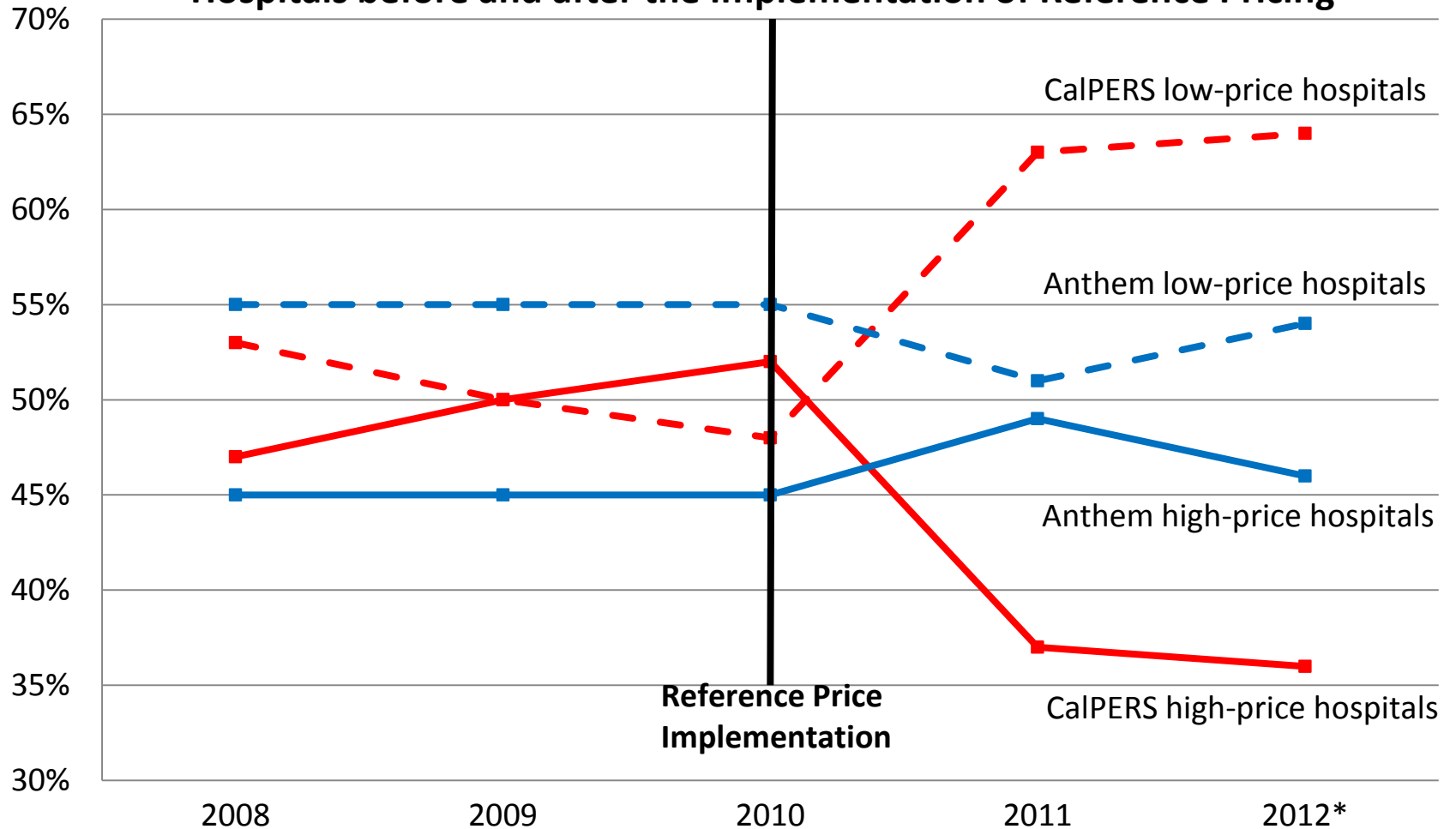
	2008	2009	2010	2011	2012*
CalPERS Anthem Enrollees					
Total number of patients	402	428	485	447	278
Patients in VBPD facilities	214	214	231	280	178
Patients in non-VBPD facilities	188	214	254	167	100
Non-CalPERS Anthem Enrollees					
Total number of patients	1824	1685	1786	1801	1108
Patients in VBPD facilities	1009	934	984	919	596
Patients in non-VBPD facilities	815	751	802	882	512

*Through September 2012 only.

VBPD: Value Based Purchasing Design facility



Percentage of Surgery Patients Choosing Low-Priced and High-Priced Hospitals before and after the Implementation of Reference Pricing



Source: California Public Employees Retirement System (CalPERS) and Anthem Blue Cross.

*Through September of 2012 only.

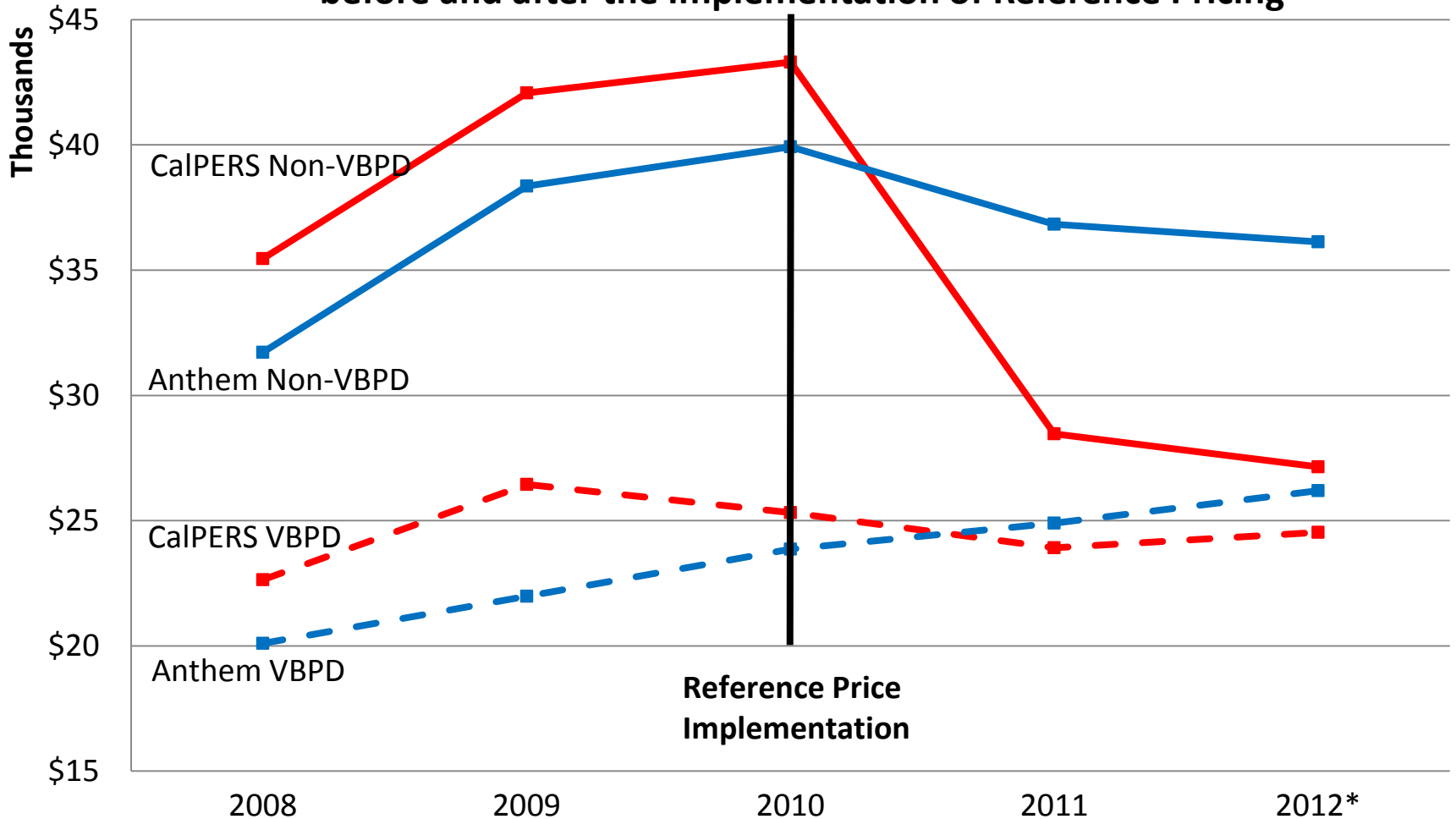
Prices Charged for Knee and Hip Replacement Surgery in VBPD Facilities and non-VBPD Facilities: 2008-2012

	2008	2009	2010	2011	2012*
CalPERS Anthem Enrollees					
All facilities	28,636	34,260	34,742	25,611	25,471
VBPD facilities	22,640	26,449	25,324	23,910	24,528
Non-VBPD facilities	35,461	42,072	43,308	28,465	27,149
Non-CalPERS Anthem Enrollees					
All facilities	25,295	29,280	31,072	30,739	30,783
VBPD facilities	20,102	21,984	23,858	24,897	26,192
Non-VBPD facilities	31,724	38,354	39,923	36,826	36,127

*Through September 2012 only. VBPD: Value Based Purchasing Design facility



Prices for Knee and Hip Replacement Surgery in California Hospitals 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 only.

Consumer Cost Sharing for Knee and Hip Replacement Surgery in VBPD Facilities and non-VBPD Facilities: 2008-2012

	2008	2009	2010	2011	2012*
CalPERS Anthem Enrollees					
All facilities	2,100	2,327	2,571	1,954	2,087
VBPD facilities	1,777	1,624	1,766	1,704	2,071
Non-VBPD facilities	2,468	3,027	3,304	2,373	2,117
Non-CalPERS Anthem Enrollees					
All facilities	1,764	1,902	1,893	1,923	2,476
VBPD facilities	1,895	1,988	1,913	2,021	2,520
Non-VBPD facilities	1,602	1,790	1,869	1,819	2,424

*Through September 2012 only. VBPD: Value Based Purchasing Design facility



CalPERS savings, compared to what would have been paid without Reference Pricing

- **2011 : -19.6% (\$2.8 million)**
- **2012 : -18.6% (\$2.7 million)**
- **Cumulative savings: \$5.5 million**



Decomposition of Savings

- **2011 : \$2.8 million**

- 15.4% due to market share growth at VBPD hospitals
- 84.6% due to reduction in prices (both VBPD and non-VBPD hospitals)

- **2012 : \$2.7 million**

- 12.9% due to market share growth at VBPD hospitals
- 87.1% due to reduction in prices (both VBPD and non-VBPD hospitals)



Conclusions and Implications

- **Reference pricing induces enrollees to use lower-priced facilities**
- **But the bigger effect is on hospital prices**
 - High priced hospitals dramatically reduce prices
 - Low priced hospitals slightly reduce prices
- **Major reductions achieved in average expenditures**
 - CalPERS payments (\$5.5 million)
 - Enrollee cost sharing per case reduced in non-VBPD facilities, but statistically flat in VBPD facilities
- **Hospital pricing changes are larger than expected, suggest that hospitals perceive CalPERS initiative as bellwether of larger trends in private purchasing**
- **It is important to change financial incentives facing consumers (cost sharing) and not just rely on direct price negotiations with providers**

