High-Deductible Health Plans: Impacts on Health Care Use, Price, and Value

BCBS Alliance for Health Research

James C. Robinson, PhD
University of California, Berkeley

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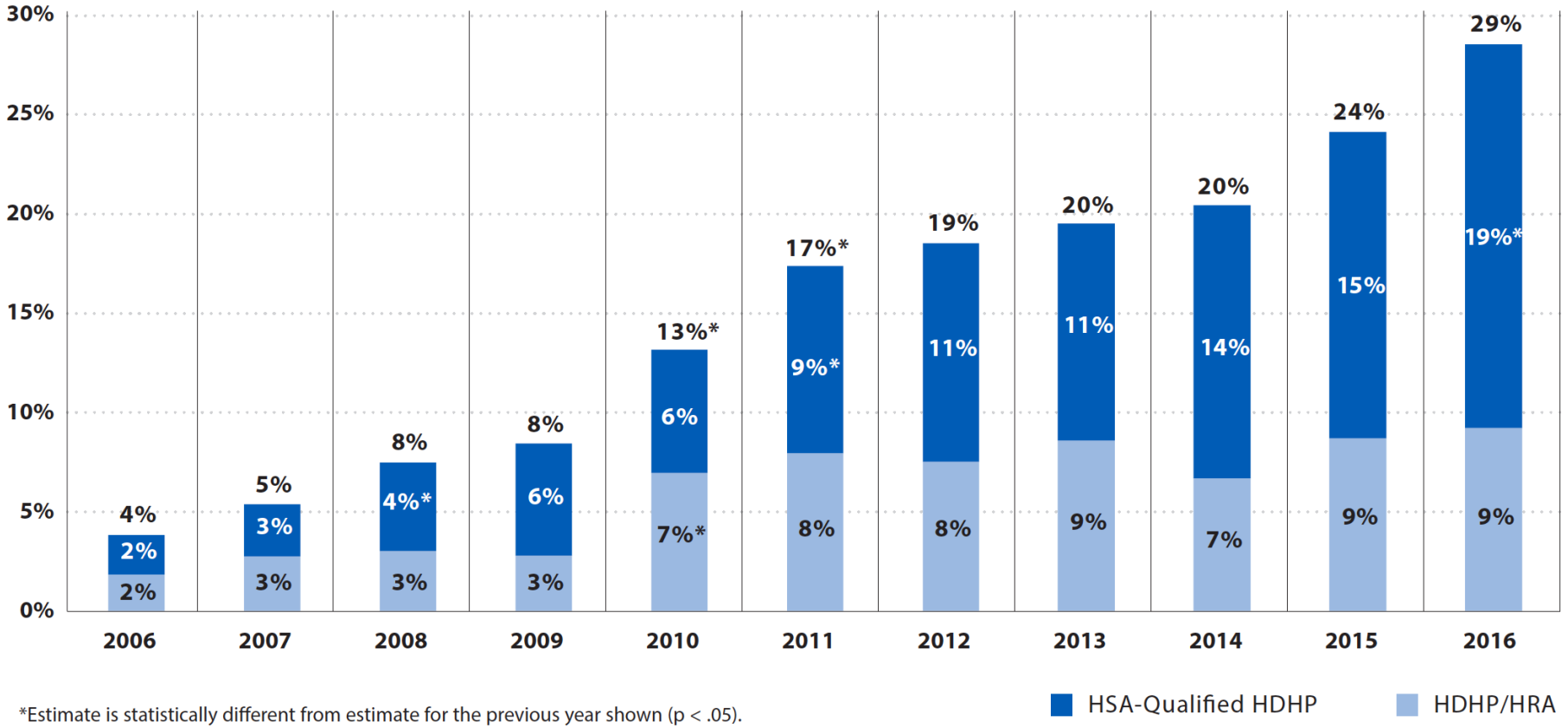
High Deductible Health Plans (HDHP) are Coming to Dominate Employment-based and Individually-purchased Insurance

EXHIBIT E

Percentage of Covered Workers Enrolled in an HDHP/HRA or HSA-Qualified HDHP, 2006-2016



*Estimate is statistically different from estimate for the previous year shown ($p < .05$).

NOTE: Covered Workers enrolled in an HDHP/SO are enrolled in either an HDHP/HRA or a HSA-Qualified HDHP. For more information, see the Survey Methods Section. The percentages of covered workers enrolled in an HDHP/SO may not equal the sum of HDHP/HRA and HSA-Qualified HDHP enrollment estimates due to rounding.

SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006-2016.

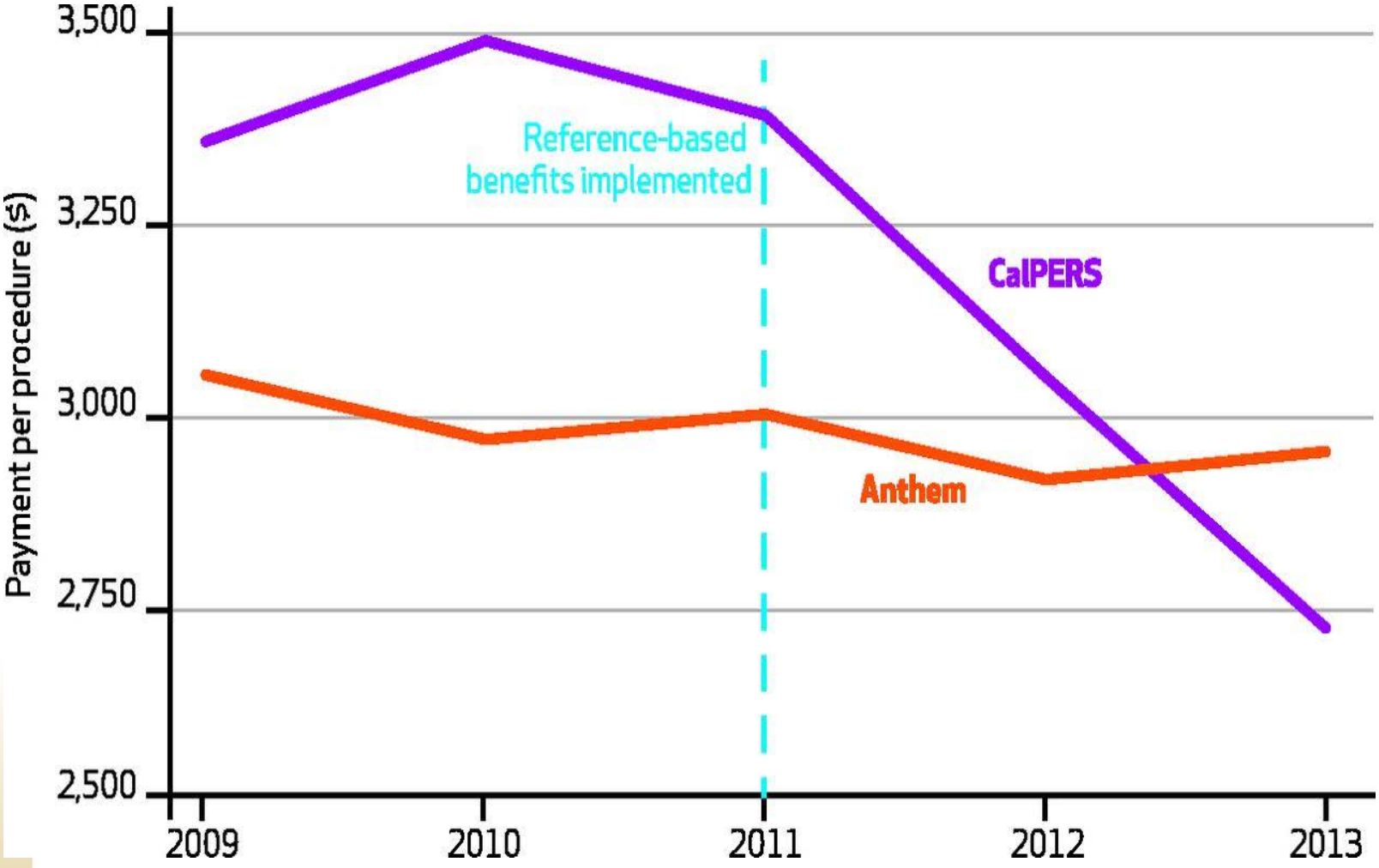
Limits to the HDHP Literature

- Data: short follow-up periods, often limited non-representative samples
- Endpoints: preventive measures, total spending
- Often do not clearly distinguish between:
  - Shopping (price) and utilization (volume, mix)
  - Appropriate v. inappropriate utilization
- Methods: DiD methods, assuming HDHP enrollment is exogenous
- Analysis: focus on average impact across full sample, without consideration of impact variance by market sub-samples

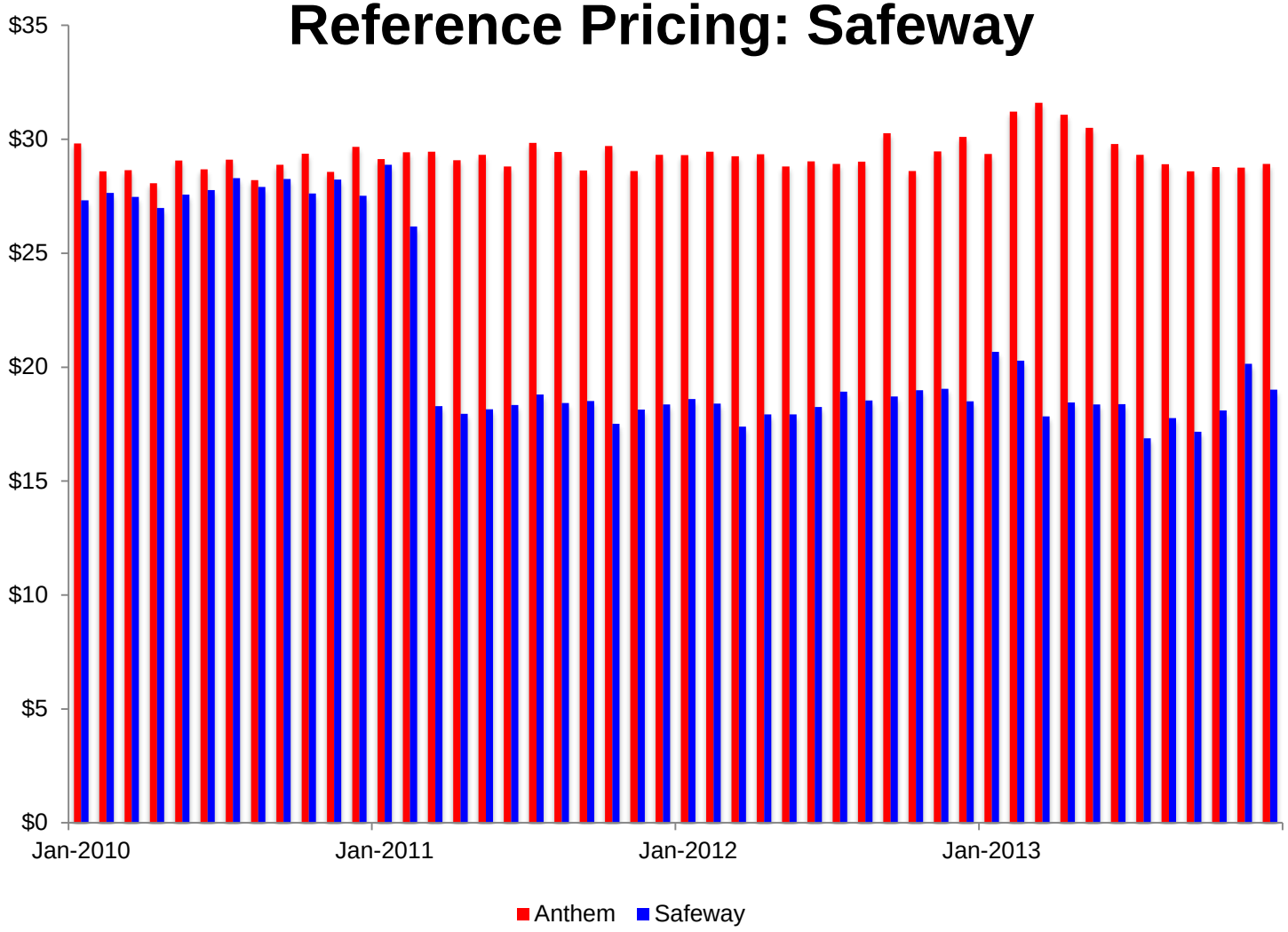
Previous Work: Reference Pricing

- Sponsor (employer, insurer) 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., minimum, median)
  - Patient must *pay the full difference* between this limit and the actual price charged
- Studies find consumers facing reference pricing:
  - Move towards lower-priced options
  - Sponsor spends less, as prices are lower
  - Total consumer cost sharing may rise or fall
  - No impact on measurable dimensions of quality
  - Bigger impact in markets with high penetration

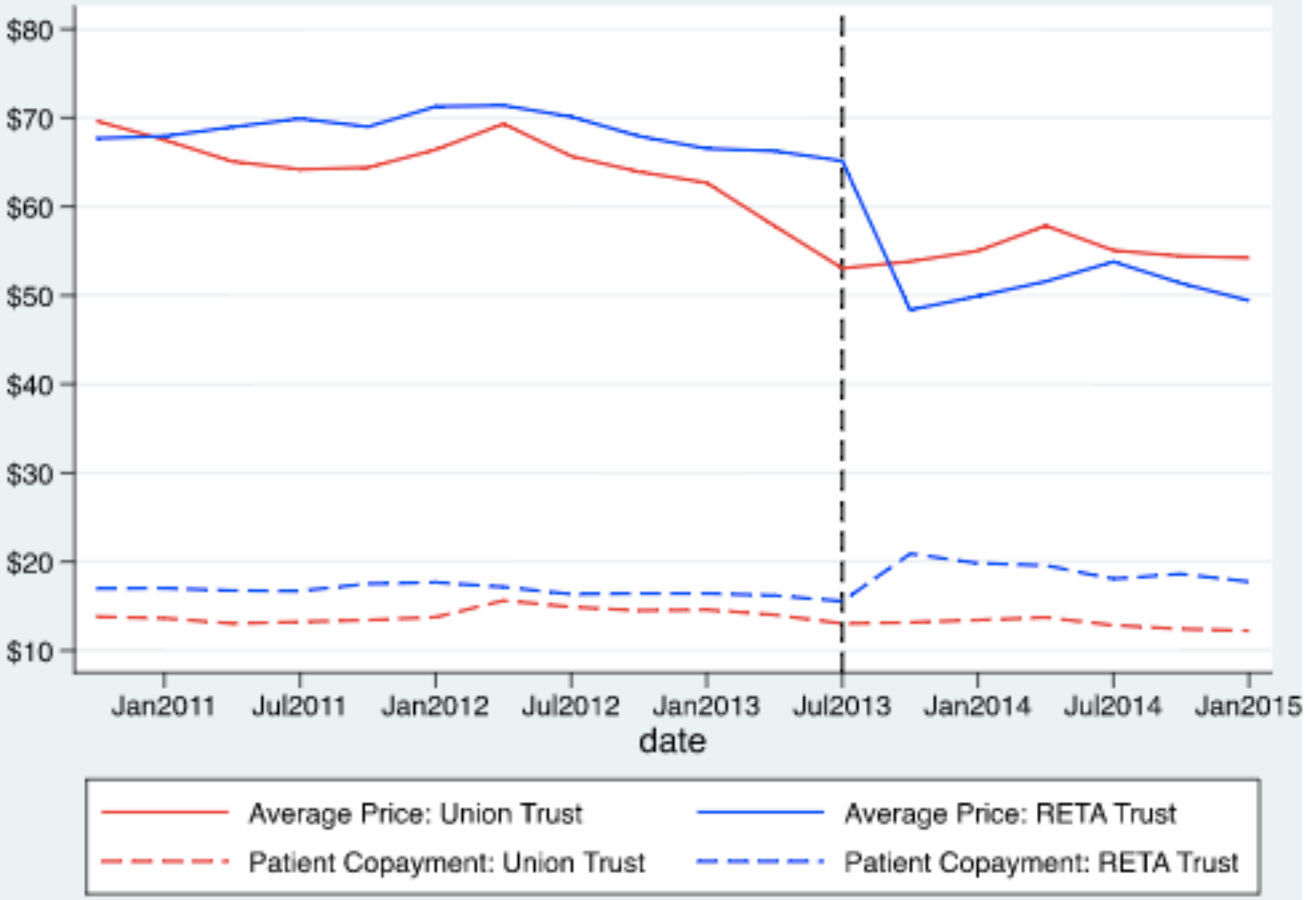
Price Paid Per Cataract Surgery Procedure, Before And After Implementation Of Reference Pricing: CalPERS



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

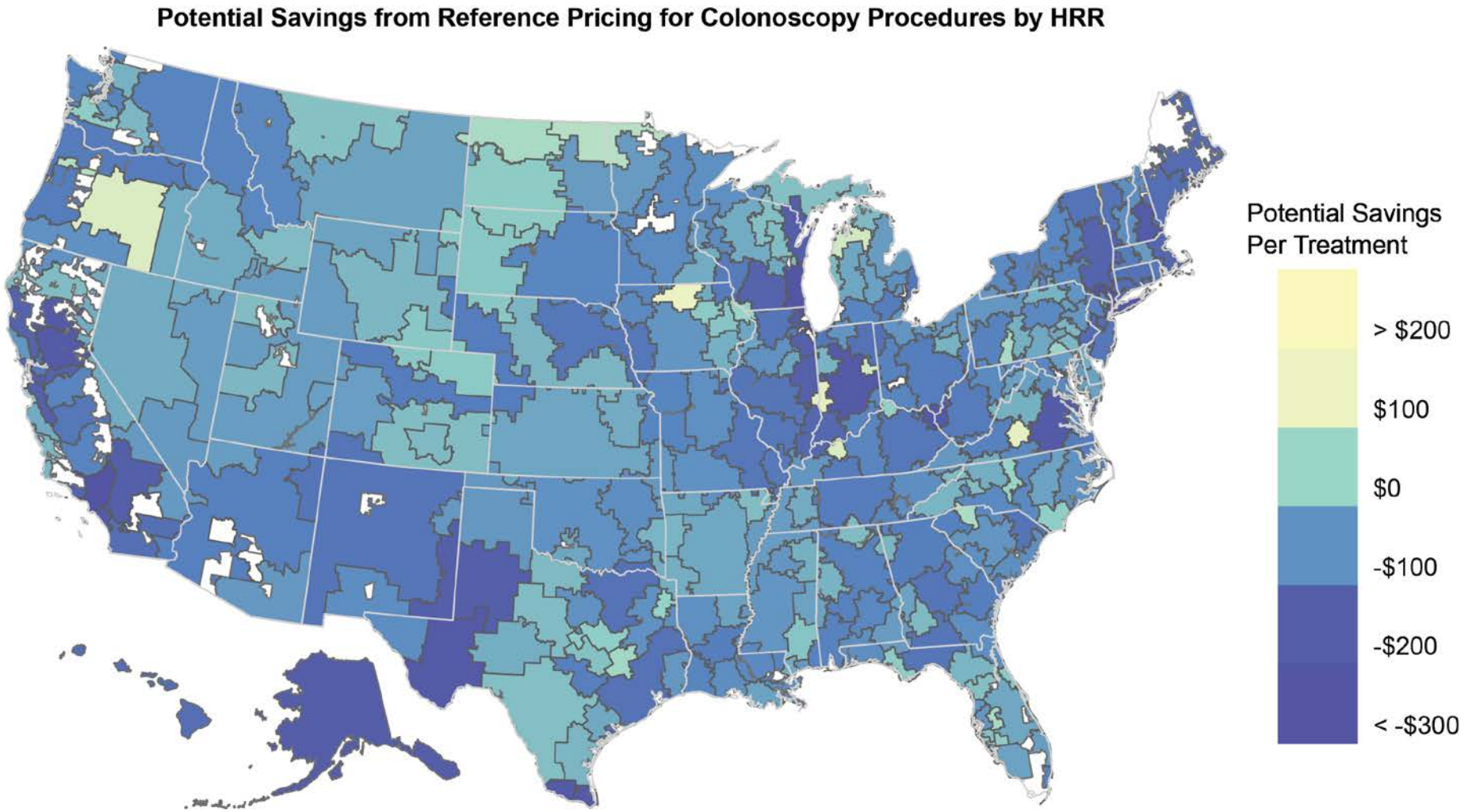


Reference Pricing Reduces Drug Prices Paid and Increases Consumer Cost Sharing: RETA Trust



Vertical dashed line indicates date of reference pricing implementation.

Potential Impact of Reference Pricing is Greater in Markets with High Variance in Price for Similar Procedures: HCCI



HDHP: Research Questions

- Do consumers facing increased deductibles shop on price?
- Do consumers facing increased deductibles disproportionately reduce the use of low-value services?
- Do consumers facing increased deductibles incur lower average expenditures per year and per episode of care?
- Are impacts greater in markets with high HDHP penetration?
- Does these behaviors change over time (learning)?

End-Points

- All endpoints measured in terms of changes (from baseline prior to HDHP), compared to changes for consumers not enrolled in HDHP
- Price shopping (shift in share to lower-priced services within in local market)
  - Focus initially on procedures included in reference pricing studies
- Use of low-value care
- Total spending per enrollee per year
- Episode-level spending (using BCBS defined episodes)

Econometric Methods

1. Difference-in-differences (DiD)

1. DiD Instrumental variables, using variation in HDHP enrollment by geographic market, industry, and year as an instrument (DiD-IV)

1. Machine learning – study variation in impacts stratified by characteristics of patients and markets, with strata defined ex post by ML rather than ex ante

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