Hospital Prices in the US: Why Do We Care, Why Do They Vary, and Why Do they Grow?

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Vermont Green Mountain Care Board
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Employer-Sponsored Insurance Premiums in New England

Average Annual Premiums for Employer-Sponsored Family Health Insurance

Location	Total
U.S. Average	$21,381
Connecticut	$24,018
Massachusetts	$22,163
Maine	$21,630
New Hampshire	$24,297
Rhode Island	$22,381
Vermont	$23,447

Source: Kaiser Family Foundation Annual Benefits Survey, 2023

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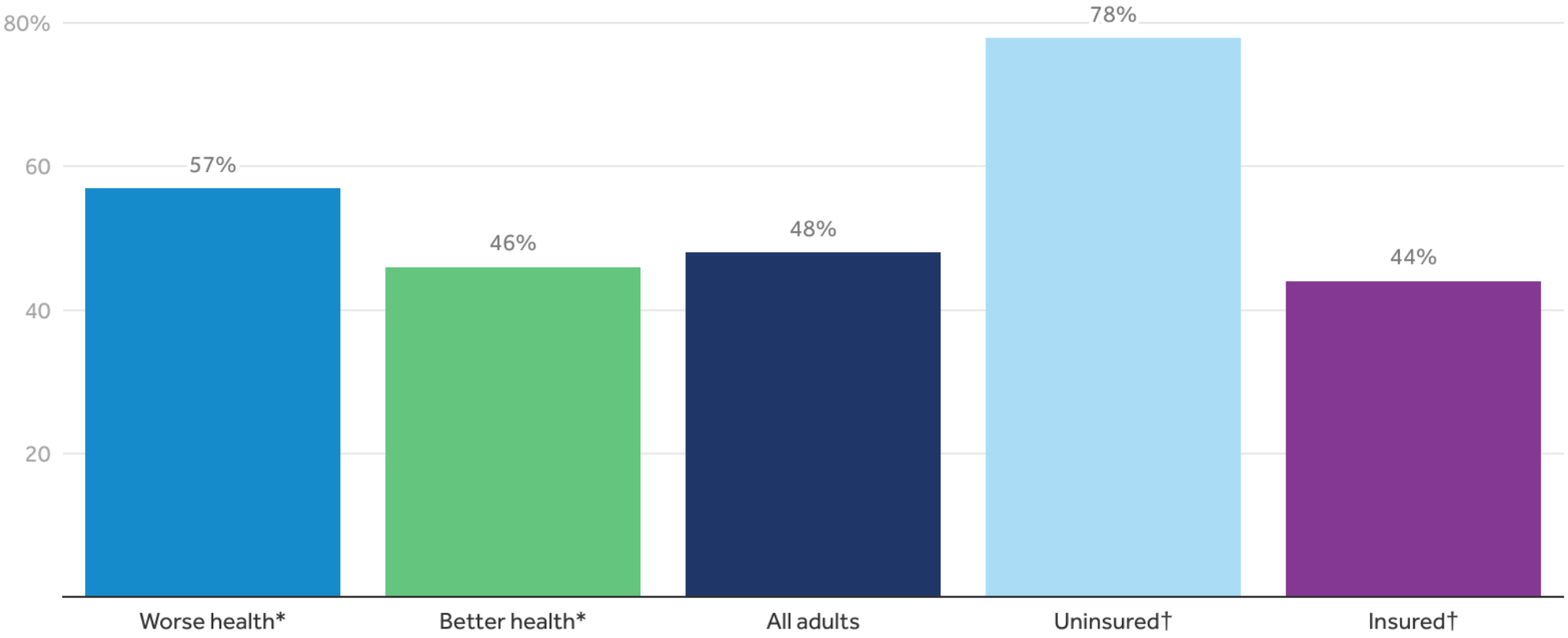
$20,425
Starting MSRP *

31/40
Est. MPG *

48% of All Adults Worried About Affording Medical Bills

Percent of adults worried about their ability to pay medical bills if they get sick or have an accident, by health and insurance status, 2020



Note: *Estimate is statistically different from estimate of other health status ($p < .05$); † Estimate is statistically different from estimate of other insurance status ($p < .05$).

Source: KFF analysis of National Health Interview Survey

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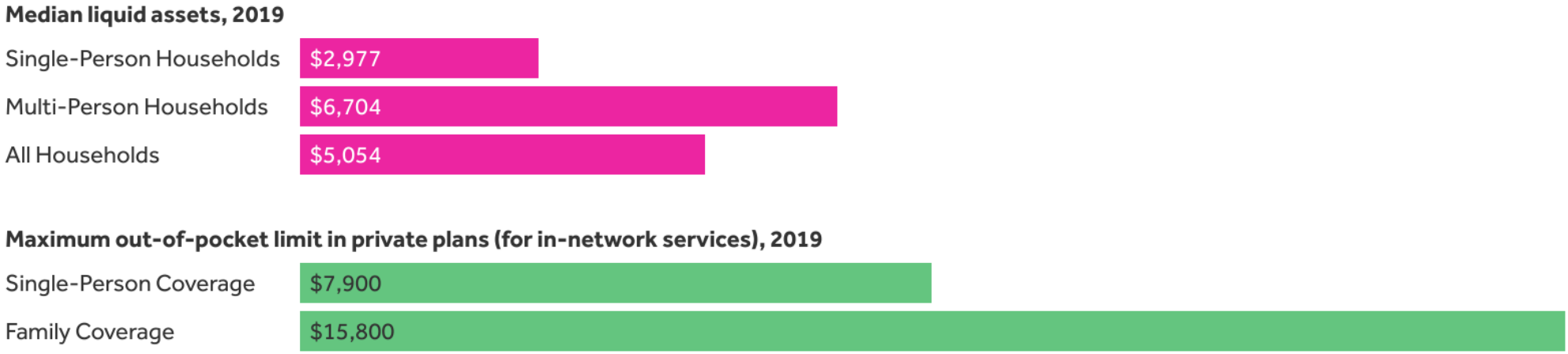
Health System Tracker

Liquid Assets Fall Short of Deductibles

Median liquid assets of households and maximum out-of-pocket limit allowed in private plans for in-network services, by household size, 2019

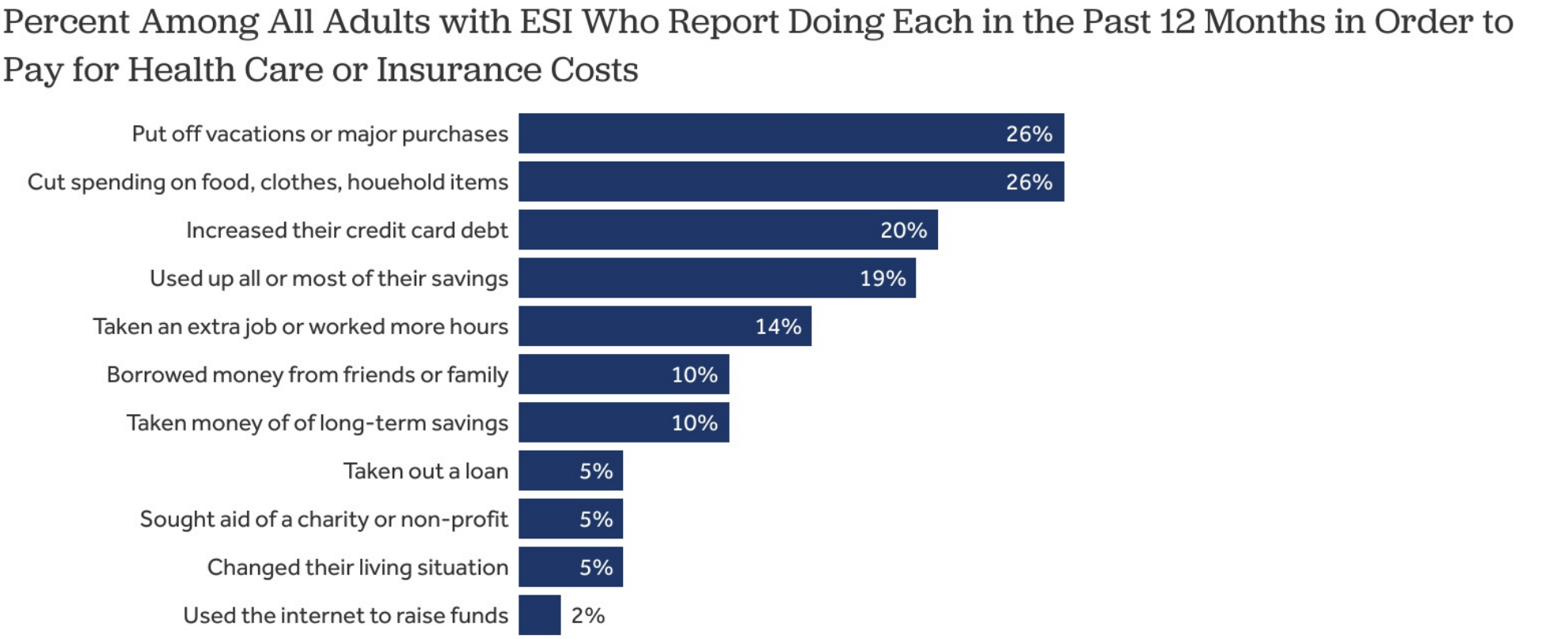


Liquid assets include the sum of checking and saving accounts, money market accounts, certificates of deposit, savings bonds, non-retirement mutual funds, stocks and bonds. Among non-elderly households, those in which the head of house and his/her spouse are less than 65

Source: KFF analysis of the Survey of Consumer Finance, 2019

Peterson-KFF
Health System Tracker

26% of Insured Adults Cut Spending on Household Items Because of Health Care Costs



Source: KFF/LA Times Survey of Adults with Employer-Sponsored Health Insurance (Sep 25-Oct. 9, 2018)

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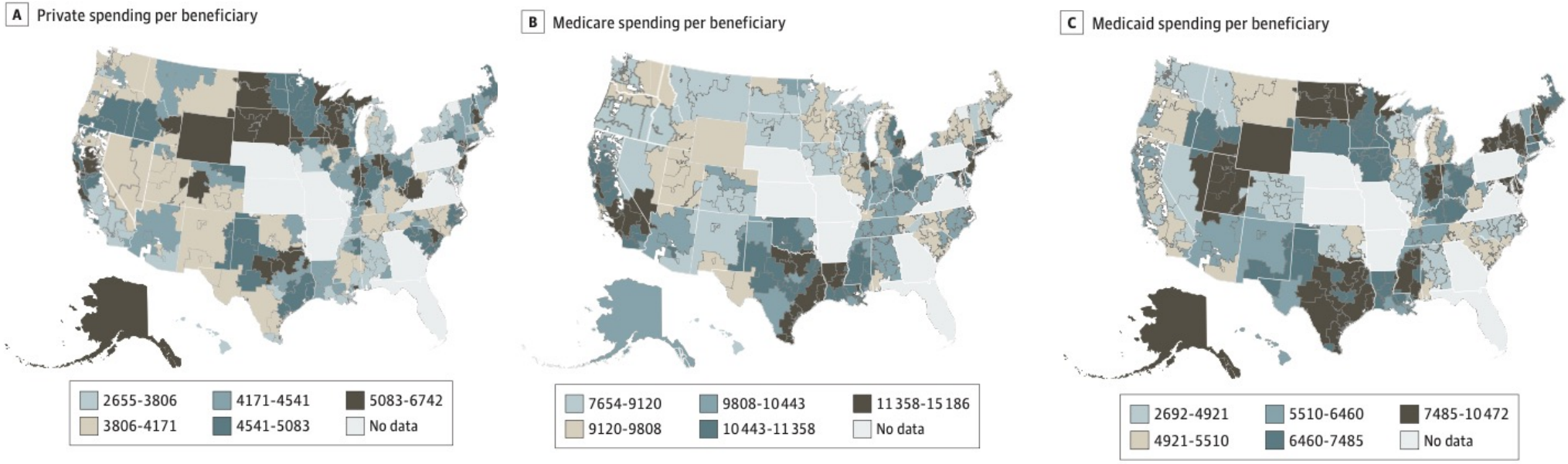
What Drives Variation in Health Spending?

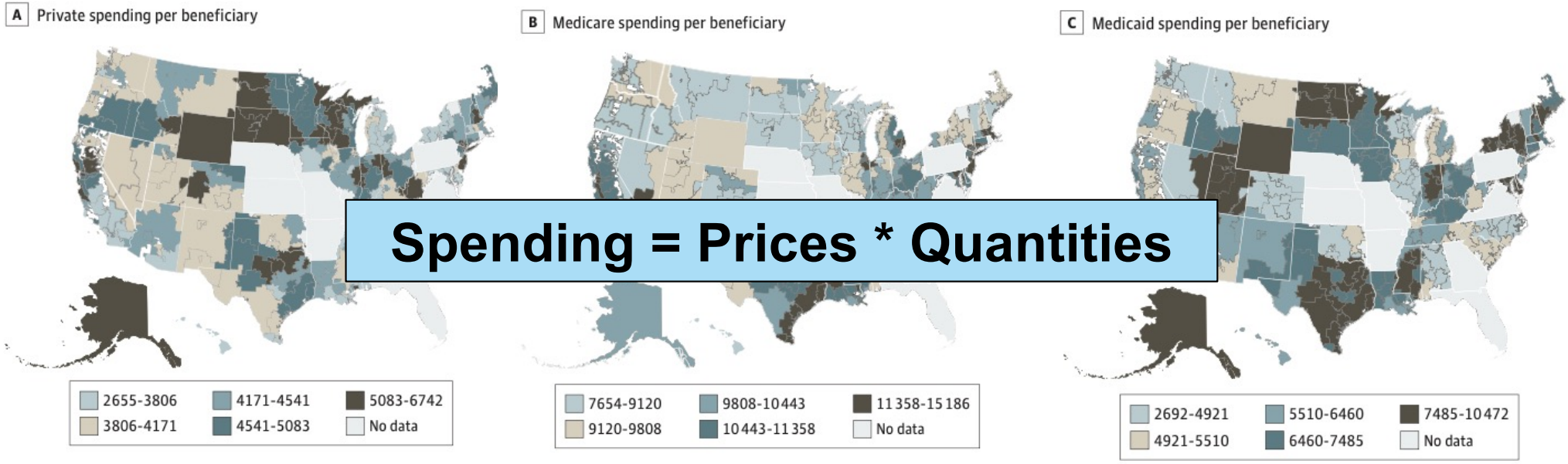


HRR-Level Correlation in Spending Per Beneficiary Across Payers

	Private Spending	Medicare Spending
Private Spending	1.00	
Medicare Spending	0.02	1.00
Medicaid Spending	0.21	0.162

Source: Cooper et al., 2022

What Drives Variation in Health Spending?



Spending = Prices * Quantities

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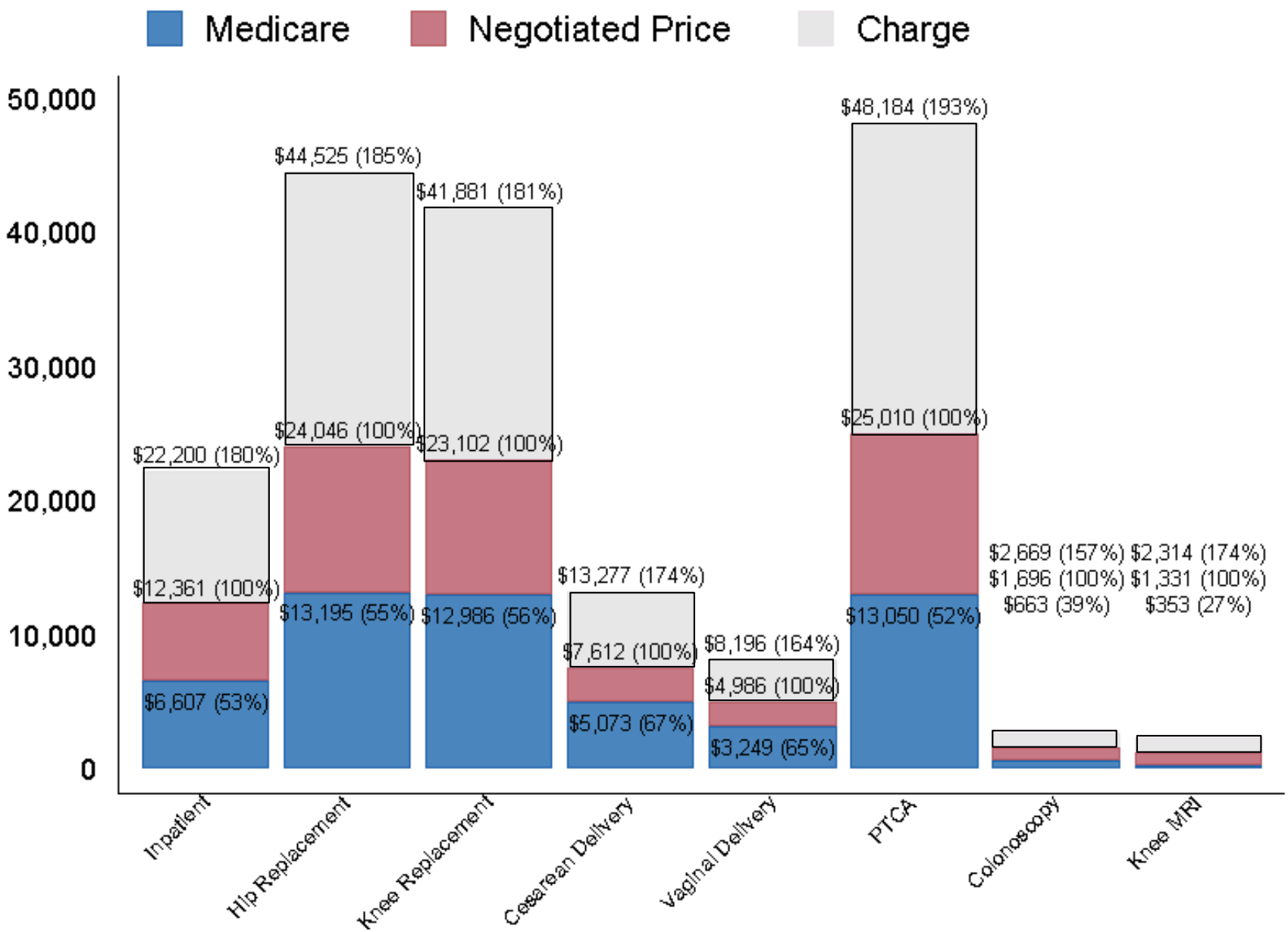
Source: Cooper et al., 2022

Charge/Negotiated Price/Medicare Fee Ratio



Notes: Prices are averaged from 2008 – 2011, put in 2011 dollars. Note that we only include hospital-based prices – so we exclude, for example, colonoscopies performed in surgical centers and MRIs that are not carried out in hospitals.

Hospital Price Setting in the US

A Five-Stage Bargaining Model Between Hospitals and Insurers Over Prices

1. Hospitals make strategic investments, like investing in capital and hiring staff, that determines their quality

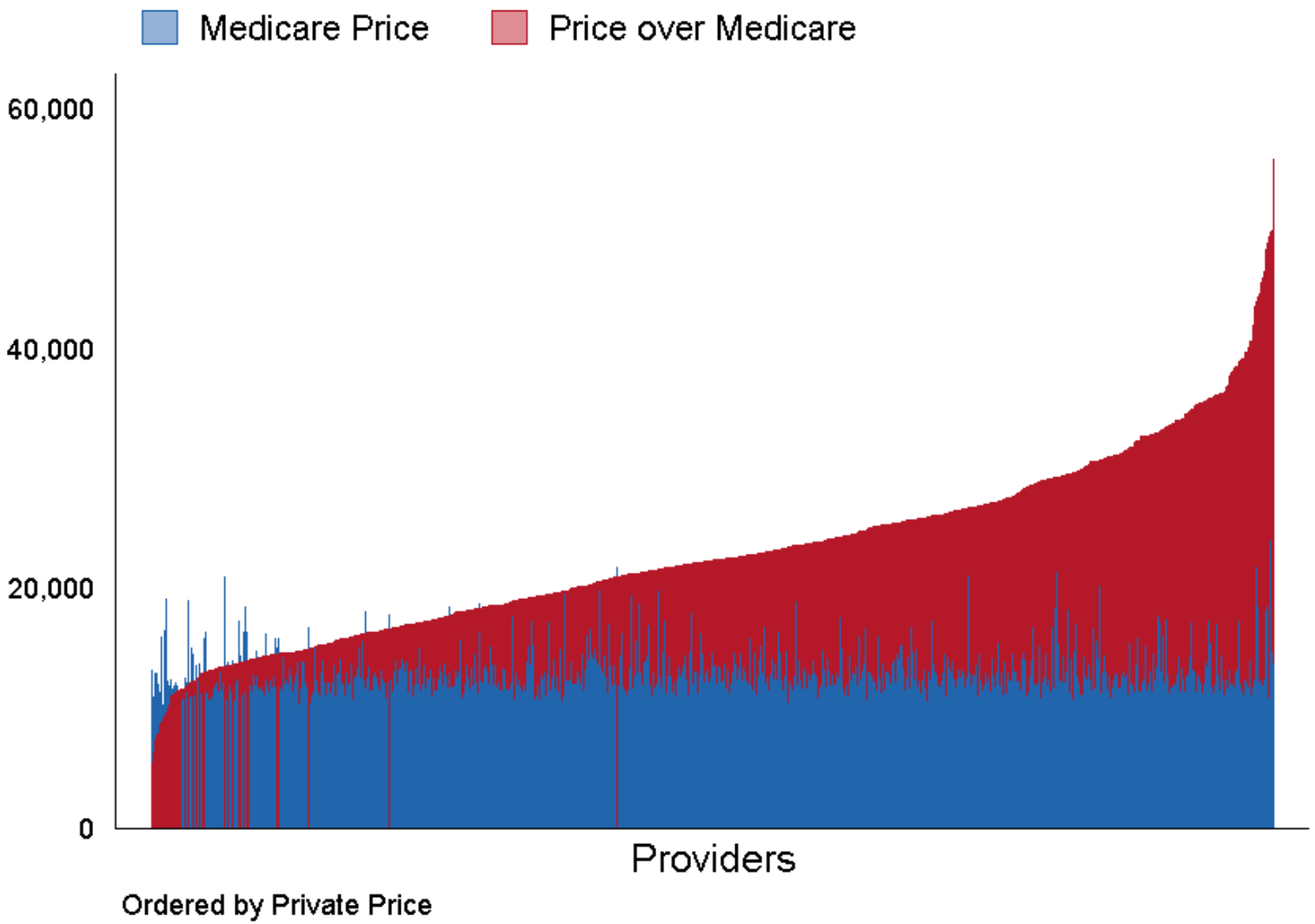
2. After quality has been determined, hospitals negotiate with insurers over reimbursements and network participation

3. Insurers set their premiums, condition on their own characteristics, the characteristics of their competitors, and their payments to providers, in order to maximize their goals (e.g., profits)

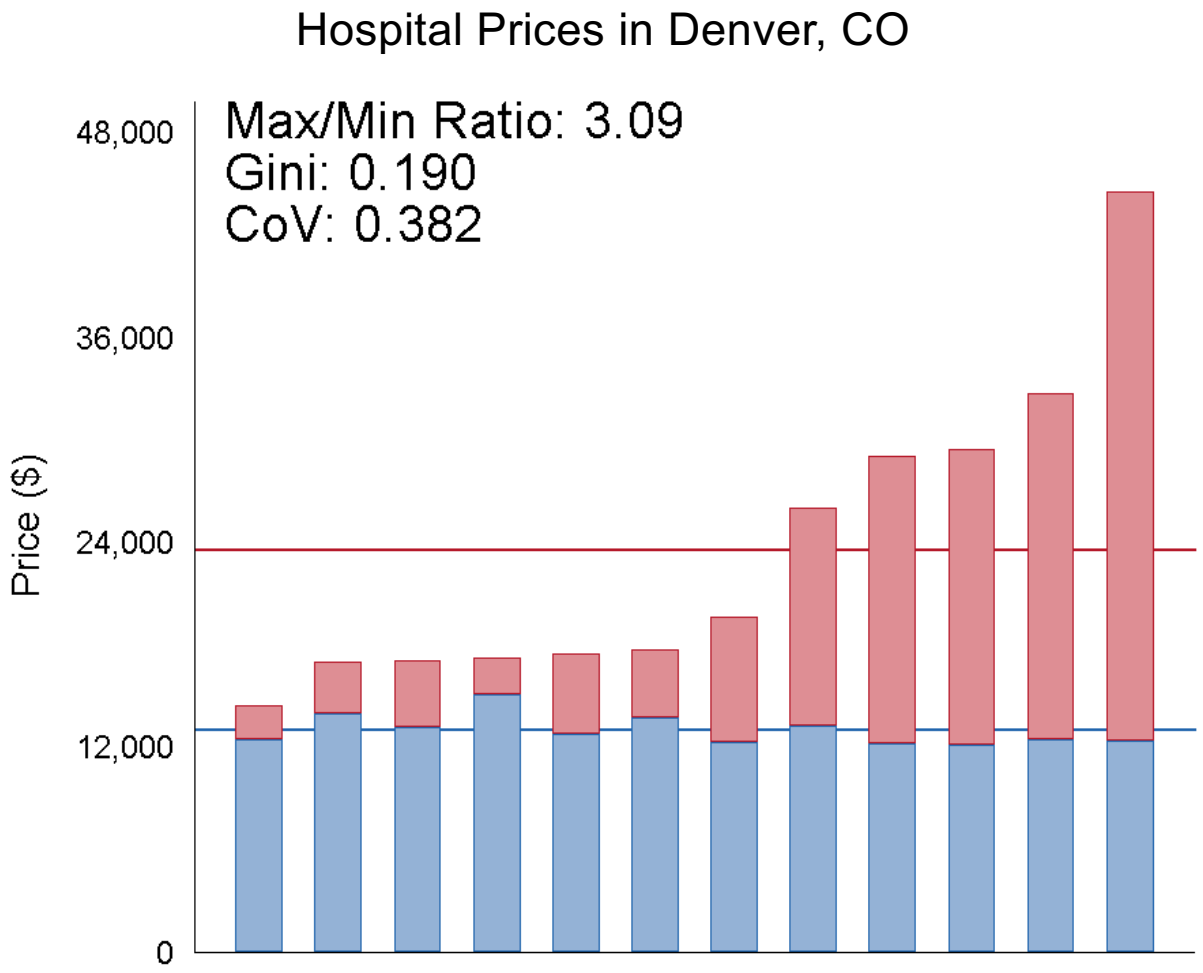
4. Individuals, conscious of their own health status and possible future care needs, choose an insurance plan

5. After enrolling in insurance, some consumers require medical care and choose a hospital that is either in-network or out-of-network, where they can receive treatment

Variation in Hospital-Level Knee Replacement Prices

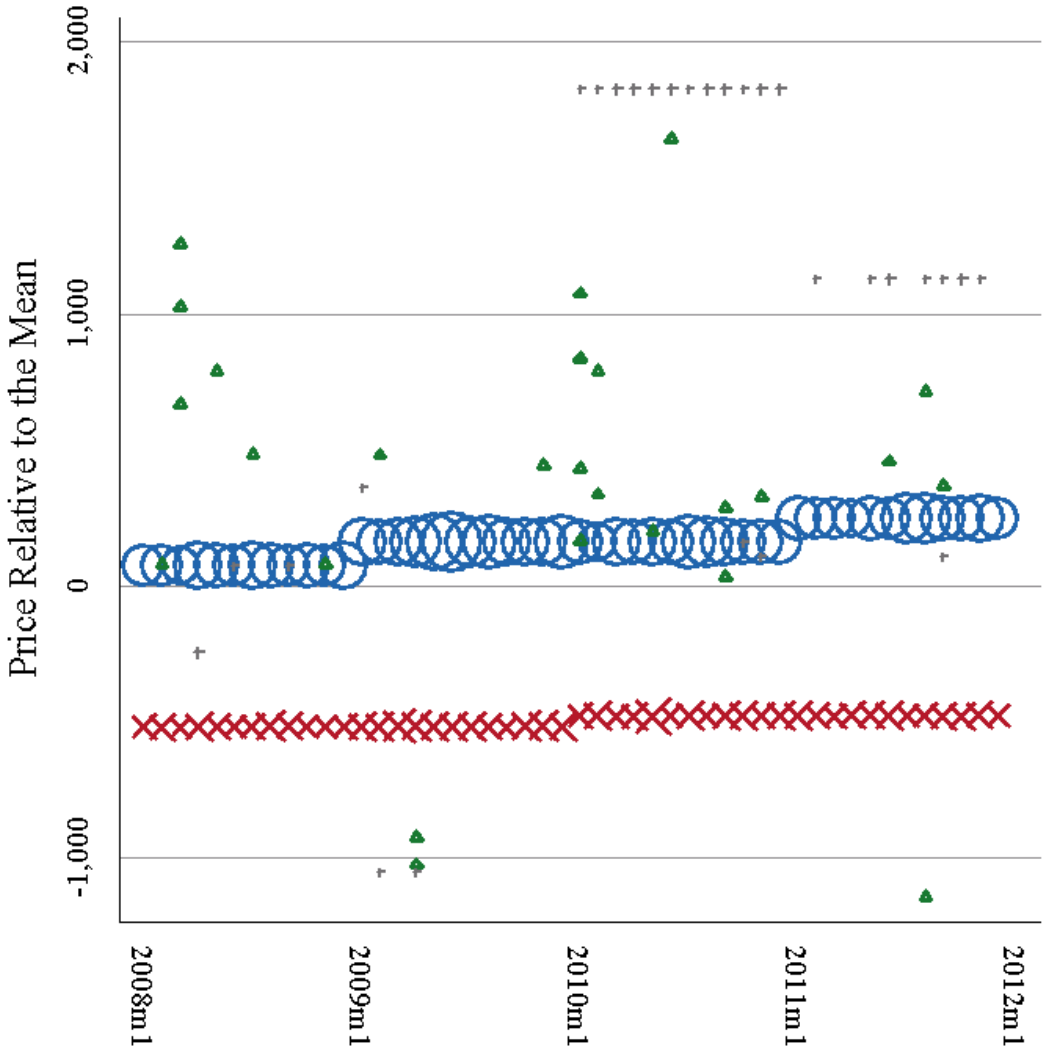


Knee Replacement Prices in Denver

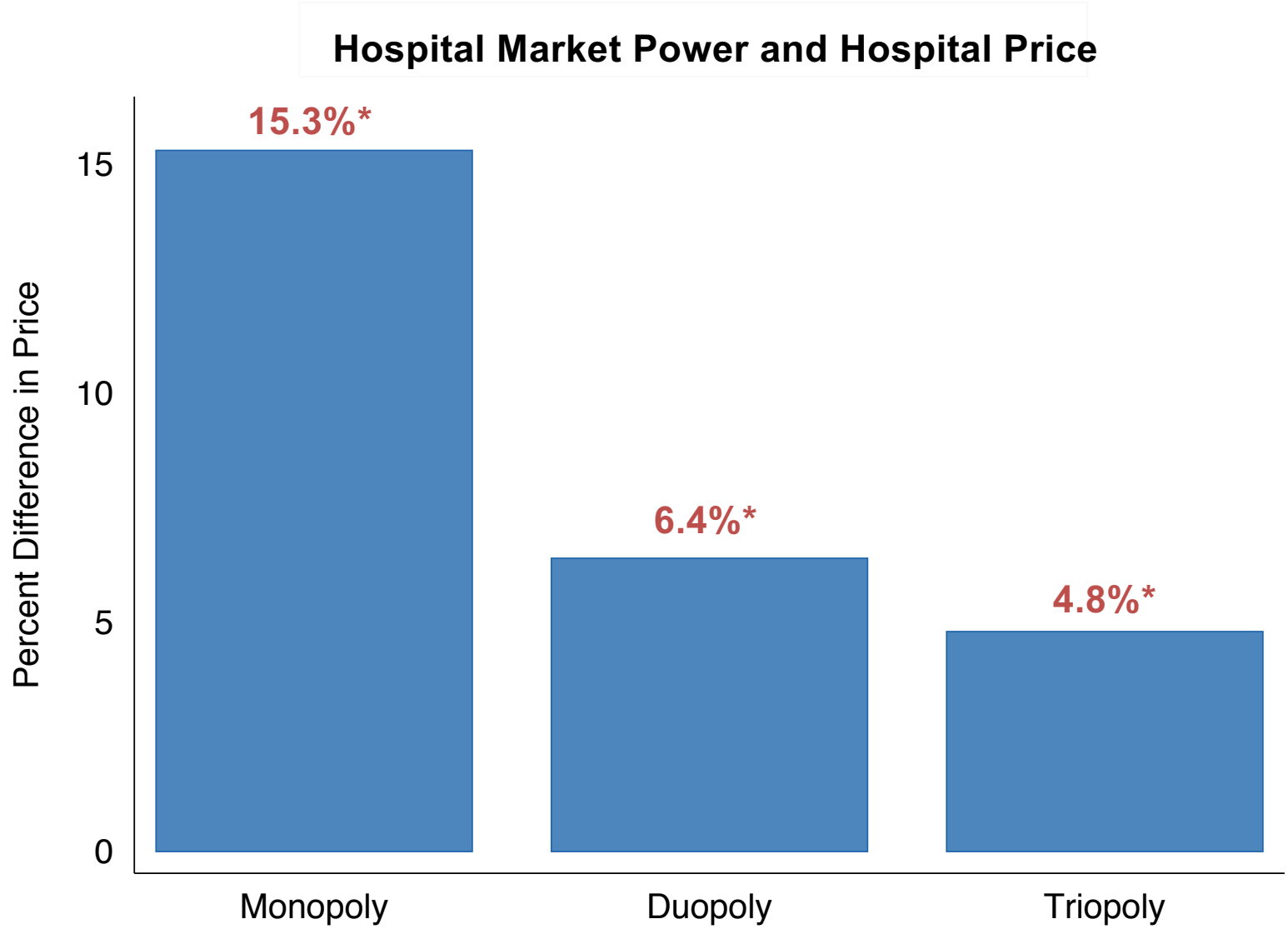


There is Even Expansive Variation in Prices Within Hospitals

Lower-Limb Prices at One High Volume Hospital

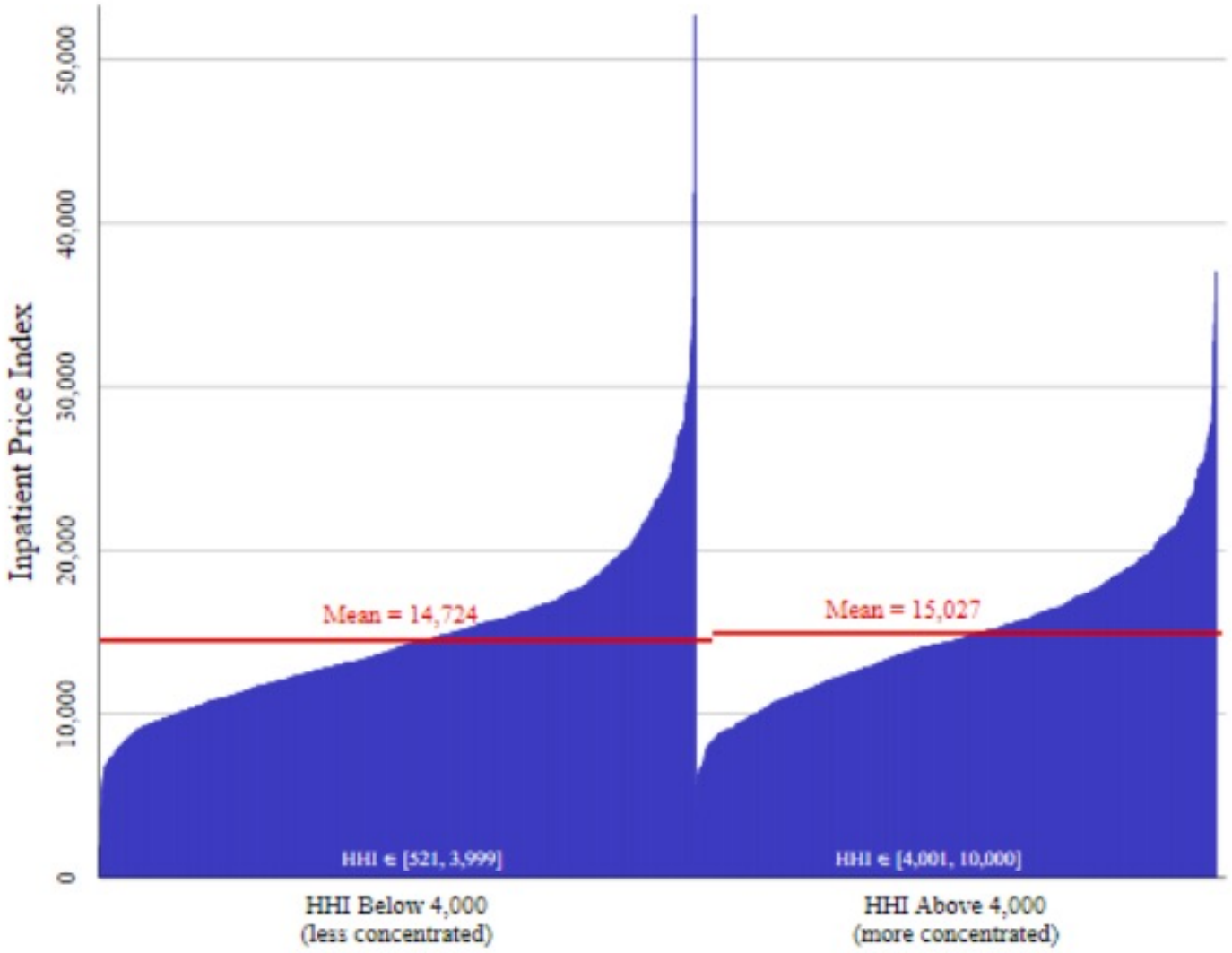


Hospital Market Power Raises Hospital Prices



Note: An asterisk indicates significance at the 5% level. This figure is based on OLS estimates for 8,176 hospital-year observations with standard errors clustered at the HRR-level in parentheses. The controls include insurance market structure, HCCI insurer share by county, hospitals use of technology, U.S. News & World Report Ranking, hospital beds, indicators for teaching hospitals, government-owned hospitals, and not for profit hospitals, the Medicare base payment rate, the share of hospitals' patients that are funded by Medicare, and the share funded by Medicaid. The regressions also include HRR fixed effects and year fixed effects.

Price Variation in Concentrated and Unconcentrated Markets



Note: The HHI measure is calculated at the hospital level and based on bed counts for hospitals accessible in under 30 minutes. We compute a time-invariant measure by averaging the hospital-year level measures between 2008 and 2014.

Source: Cooper et al., 2023

Hospital Prices and Quality (Mortality)

What happens when a patient is quasi-randomly allocated to a high-priced hospital (e.g., a shift from a hospital in the 20th percentile of prices to the 80th percentile)

Challenge: Where patients receive care is not randomly assigned

Solution: Use which ambulance collects you as an instrument for where you get care

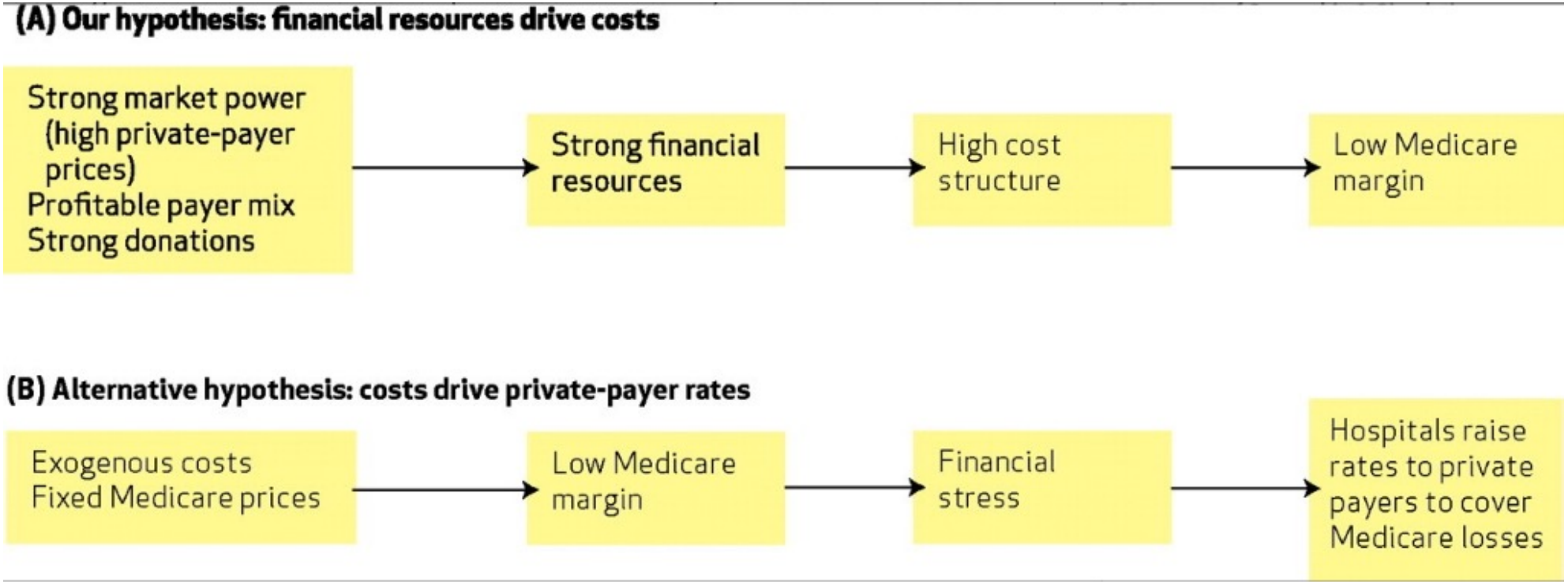
Results

- **For hospitals in unconcentrated markets (HHI < 4,000):** 53% higher spending and 1.29 percentage points (47%) less likely to die. This implies a cost to an additional life of ~$1m
- **For hospitals in concentrated markets (HHI > 4,000):** 53% higher spending and no differences in mortality

Source: Cooper et al., 2023

Are Private Prices High Because of 'Cost Shifting'

- The margins on private insurer's payments are higher than margins on publicly insured patients – undoubtedly, hospitals subsidize some losses on publicly insured patients using private profits
    - Is that inevitable?
    - Regions with higher Medicare payments actually have higher prices



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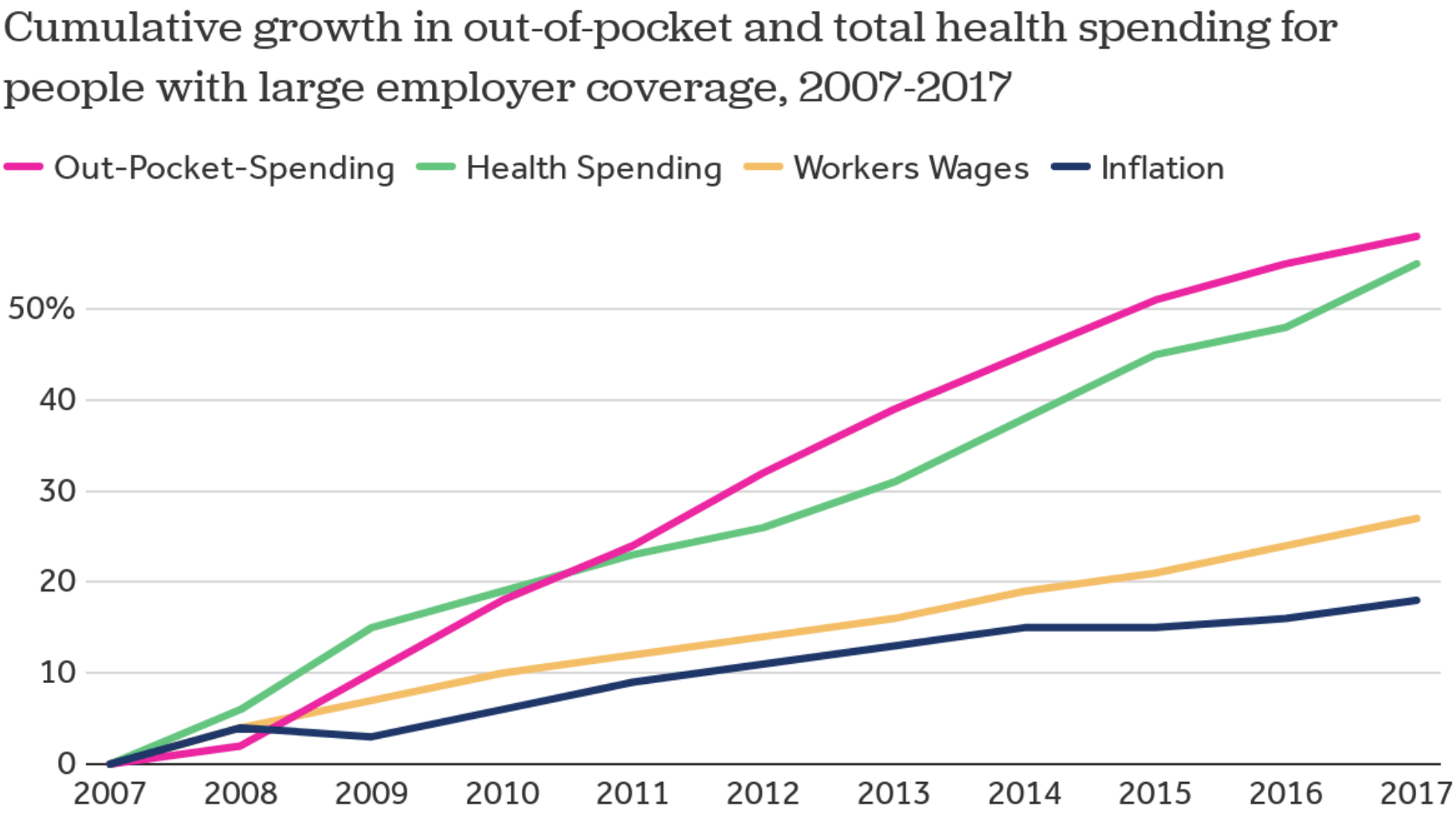
- The margins on private insurer's payments are higher than margins on publicly insured patients – undoubtedly, hospitals subsidize some losses on publicly insured patients using private profits
    - Is that inevitable?
    - Regions with higher Medicare reimbursements have higher prices
- No evidence or theory to support dynamic effects (e.g., if Medicare lowers rates, hospitals raise private rates)
    - Inconsistent with theory – a profit maximizing firm already is setting their prices at market rates; changes in public rates don't impact that rate
    - Clemens and Gottlieb (2017): Private prices ***follow*** Medicare rates

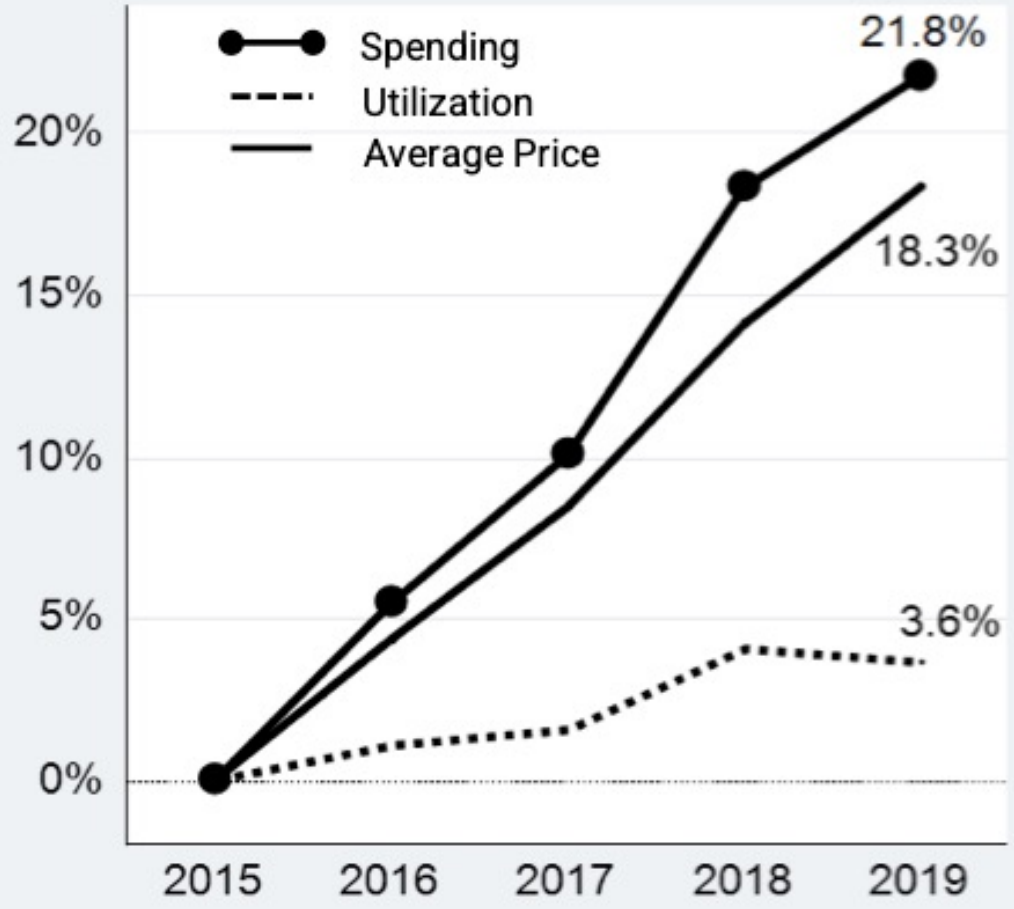
Rising Out-of-Pocket Costs Place Huge Pressure on American Families



Source: Kaiser Family Foundation/Peterson Foundation Health System Tracker

Price Growth is Driving Spending Growth

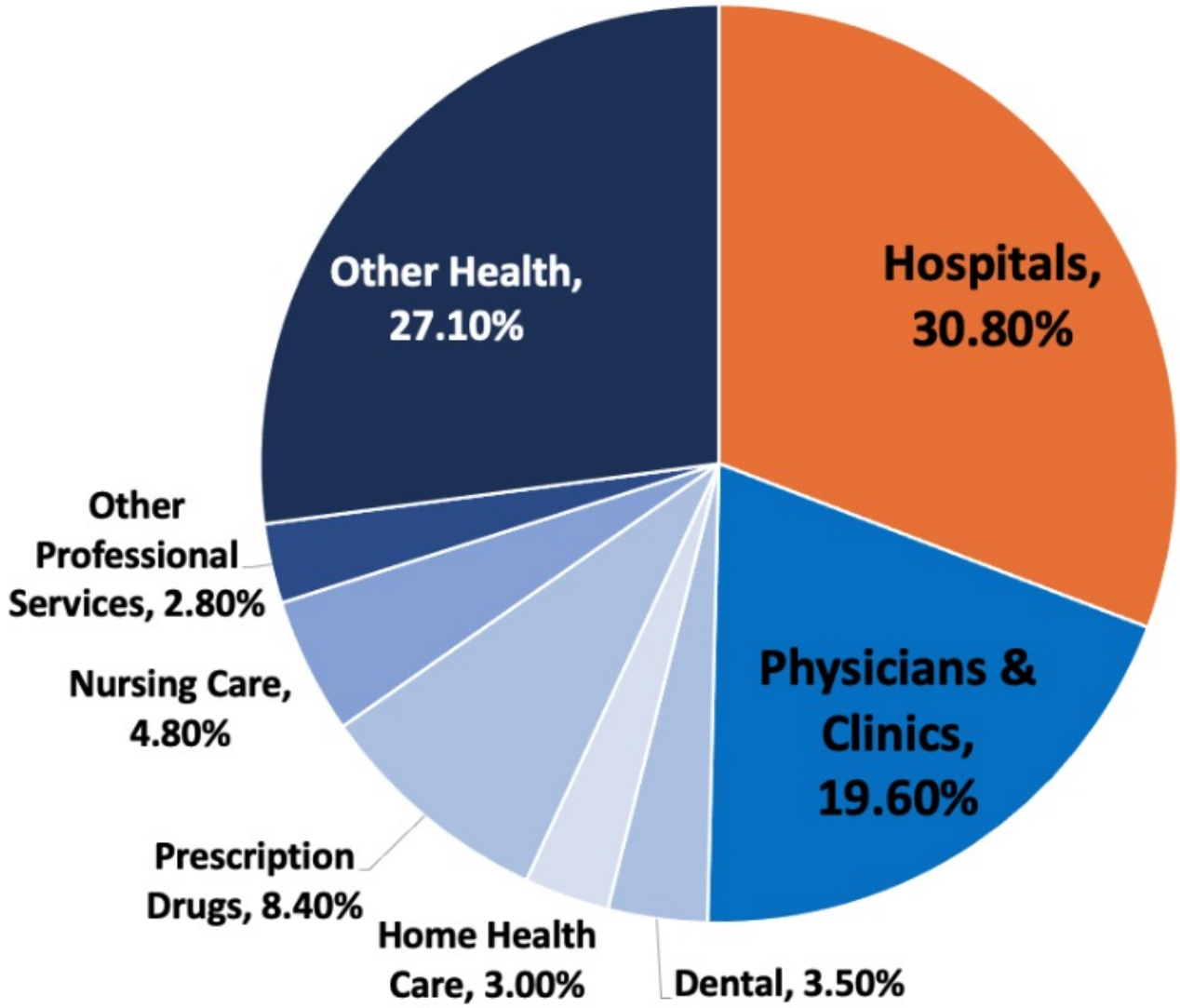
Figure 2: Cumulative Change in Spending per Person, Utilization, and Average Price since 2015



Note: All numbers presented in charts are available as downloadable data tables.

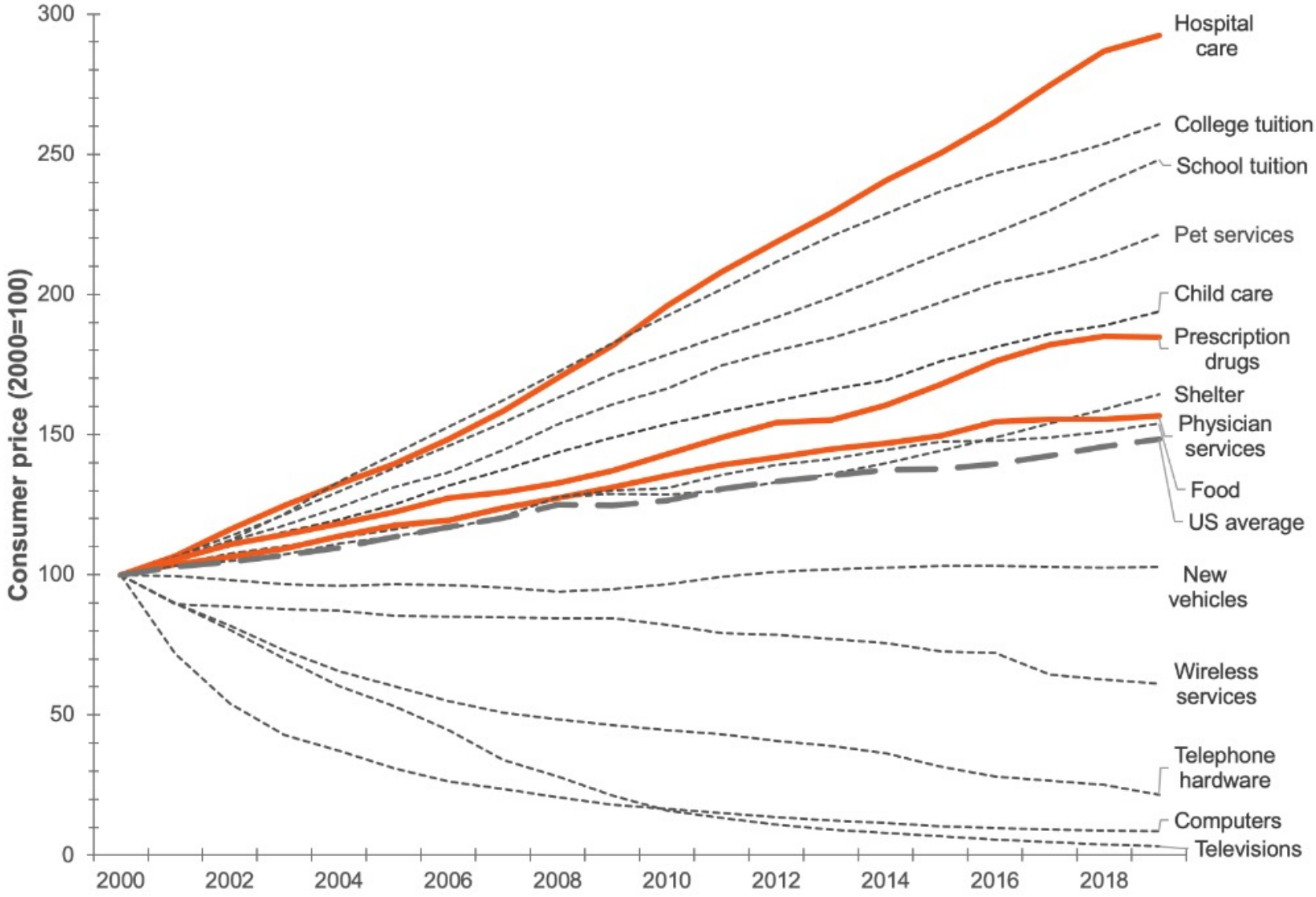
Source: HCCI Annual Report 2019

Hospital Care Accounts for the Largest Share of Health Spending in the US



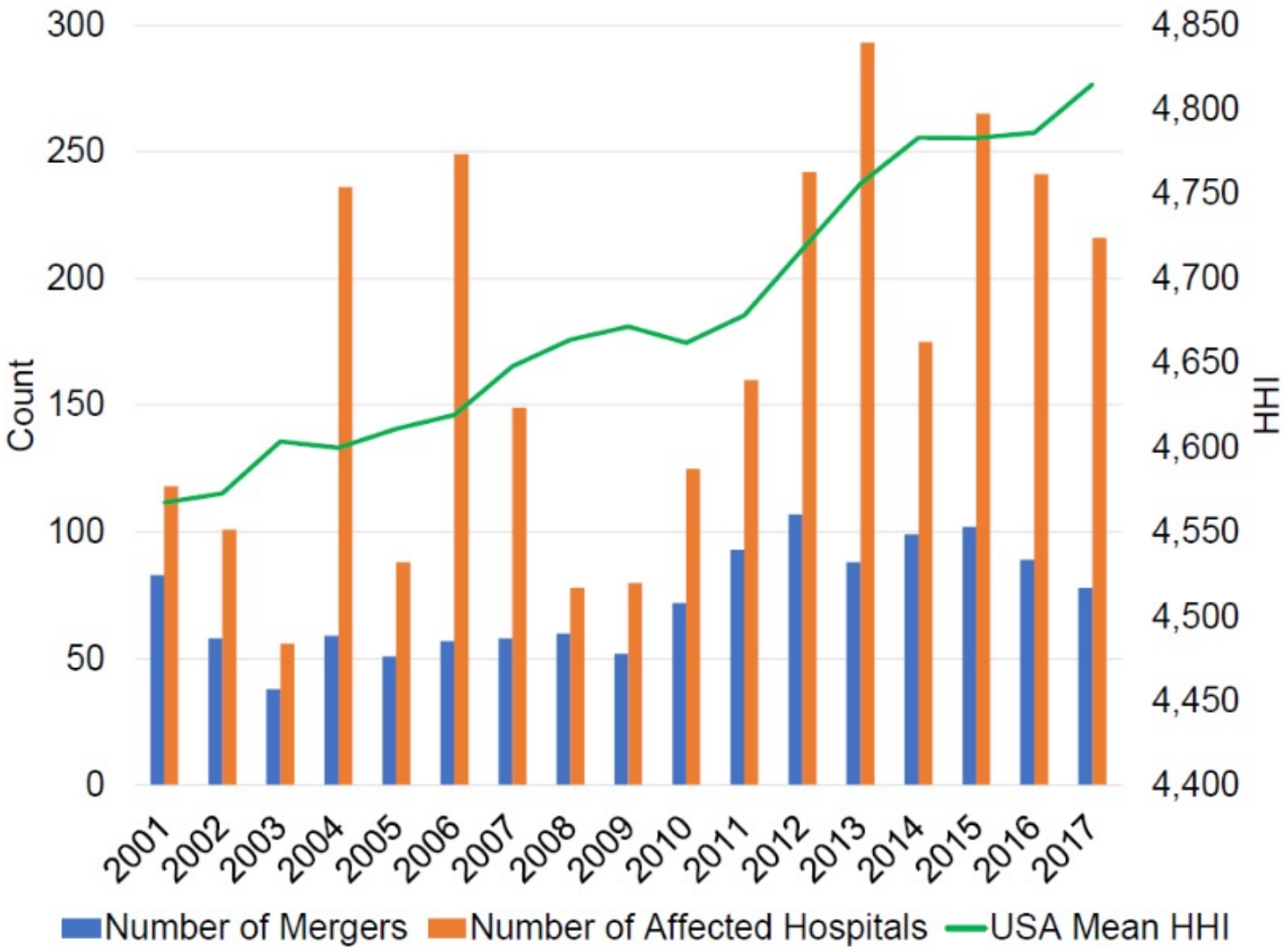
Note: Data from the Kaiser Family Foundation.

Hospital Prices are Increasing Faster Than Prices in Any Other Industry



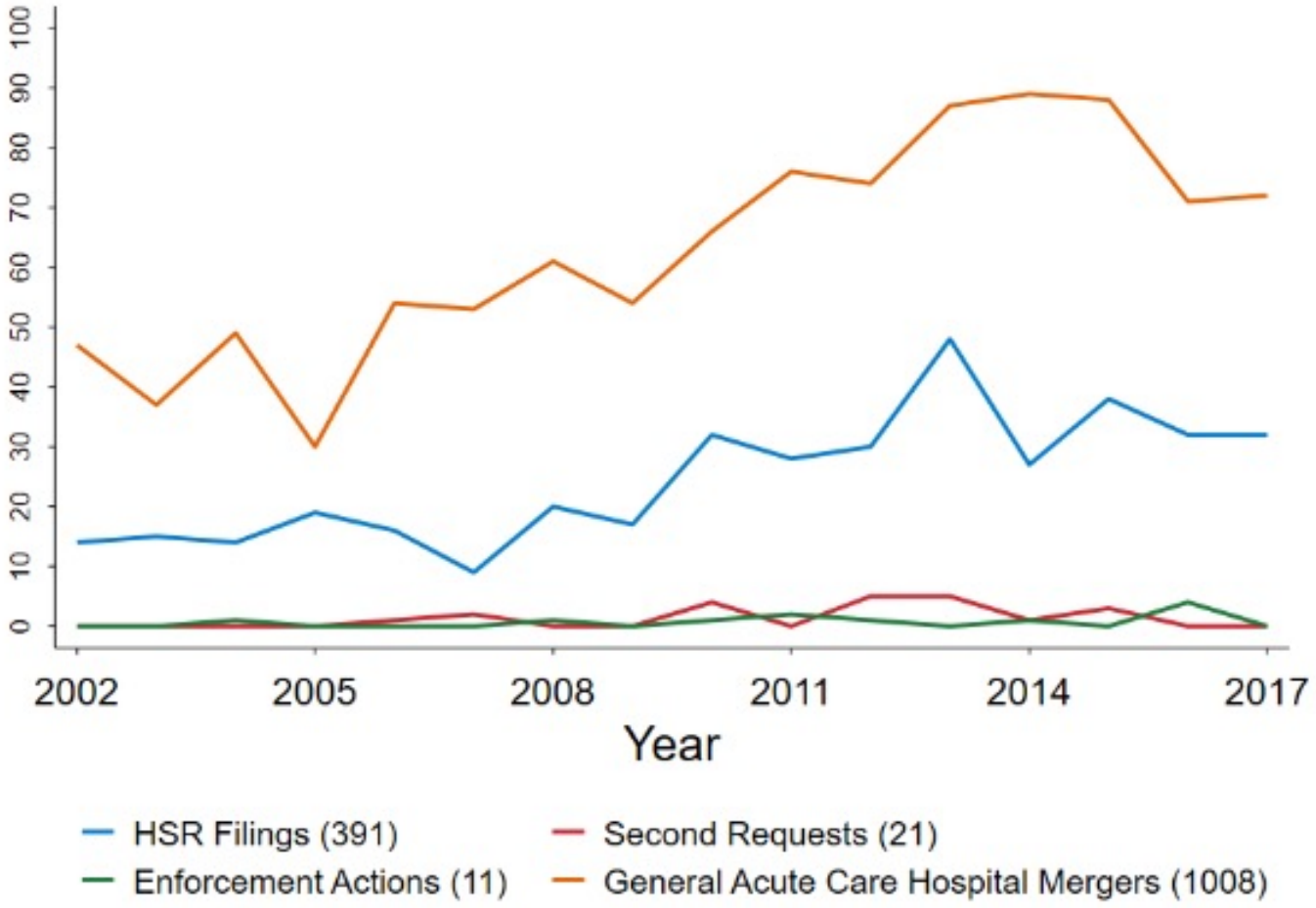
Note: Data from the Bureau of Labor Statistics.

A Steady Stream of Consolidation in the 2000s



Note: HHI for 30-minute drive time catchment around each hospital. USA mean HHI is a weighted mean HHI of hospitals in the USA, where the mean is weighted by hospital beds.

This is Partly a Product of Underenforcement



Note: The count of mergers annually is based on the authors' analysis. Data on HSR filings, second requests, and FTC enforcement actions comes from the FTC's Annual Reports to Congress Pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

So What Can We Do?

1. Do regions have the scale necessary to support all services?
   - Significant evidence there are sizeable returns to scale, particularly for specialized services (Dingell et al., 2023)
   - What services should be provided locally?
2. Can regions support competition at present (e.g., absent unscrambling eggs or adding capacity, what do markets look like at present)?

Market-Based Reforms	Facilitating Patient Travel	Non-Market-Based
• ⬆️ Antitrust enforcement • Caution about vertical and horizontal deals	• Approximately 20% currently travel out of market for care • Affords access to higher quality • More affluent travel more – needs to be addressed	• Regulating providers' prices • Hospital budgets • Integrating payer/provider