Healthcare Price Transparency: Data Overview, Research Summary, and Implications

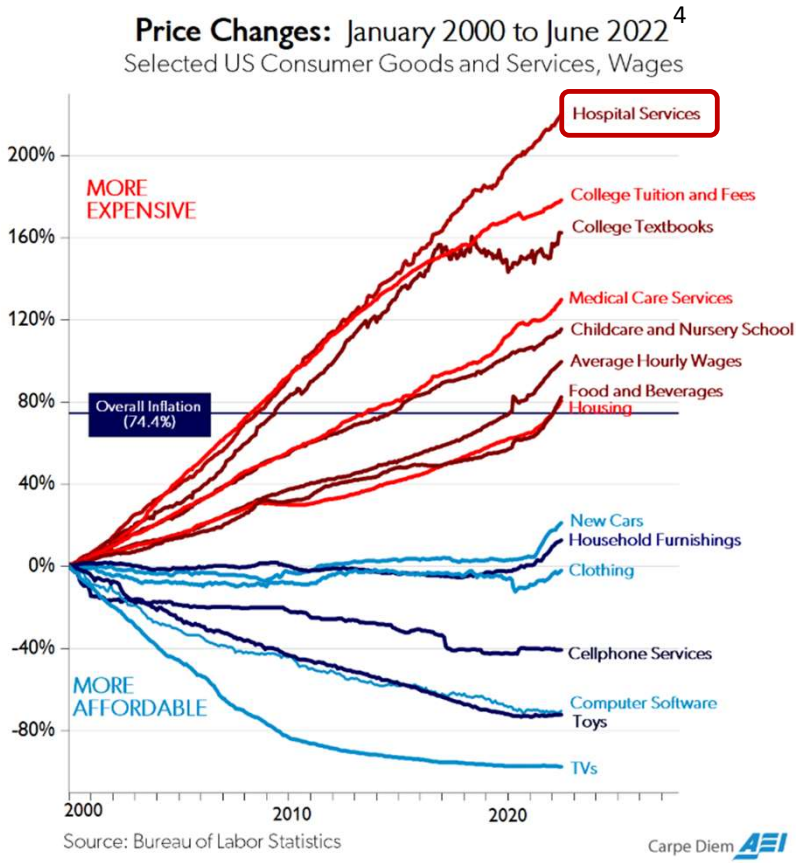
Yang Wang, PhD

Assistant Research Professor
Johns Hopkins University School of Public Health
March 3, 2025
ywang406@jhu.edu

Table of Content

Background

1. Commercial prices for hospital care are highly expensive, varying, and opaque.[1-3]
   - Patients and employers are uninformed/disadvantaged when purchasing care
2. Two recent federal price transparency regulations result to the public disclosure of commercial negotiated prices by hospitals and insurers.[5,6]
   - Empower patients and employers to access, compare, negotiate prices
   - Stimulate competition and improve healthcare affordability



Section 1: Key Findings on Commercial Pricing

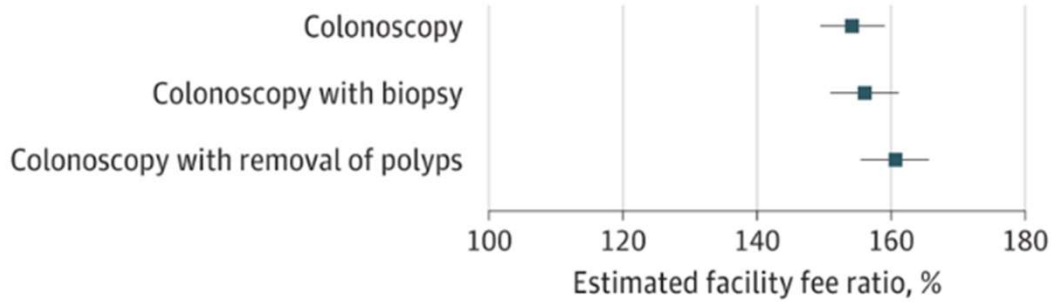
- We know that commercial prices for hospital care vary widely across different parts of US [7]
  - not too surprising as New York city is quite different from Chicago or Los Angeles.
- However, WITHIN each local market (metro city, referral region, state), commercial hospital prices also vary substantially:
  1. Across hospital facilities [8-10]
  2. Across commercial insurers contracting with the SAME hospital [11,12]
  3. Across insurance plan segments negotiated by the SAME insurer [13-16]
  4. Self-pay cash prices can be CHEAPER than many insurer-negotiated rates [8]

Section 1.1: Pricing Dynamics by Hospital/Care Setting

Substantial price variation— across hospitals in the SAME market/area

1. Hospitals with stronger market power (e.g. large bed size, system affiliation) negotiate higher prices.[8]
   - Insight: Inform commercial plans when forming narrow or tiered networks of affordable hospitals
2. Physician-owned hospitals (POH) negotiate **18%** lower prices for outpatient procedures than non-POH hospitals.[9]
   - Insight: Support policymaking on easing the market entry for POH
3. Commercial prices for colonoscopies are nearly **60%** higher when delivered at hospitals than ambulatory surgical centers (ASCs).[10]
   - Insight: Promote site-neutral payment

Figure 2. Regression Estimates of Facility Fees for Commercial Colonoscopy Procedures in Hospitals Compared With Ambulatory Surgery Centers[10]



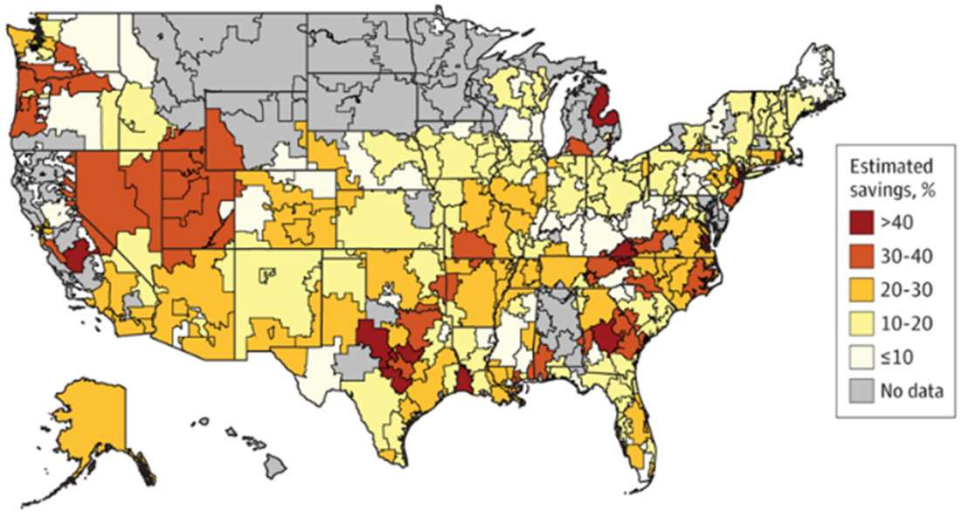
Section 1.2: Pricing Dynamics by Insurer

Substantial price variation— across insurers contracting with the SAME hospital

1. Insurers with the dominant market share negotiate 23% lower prices for shoppable outpatient care than smaller insurers in the same area.[11]
2. Commercial plans could save **21%** for common inpatient services, if using the **lowest prices** negotiated among the national insurers as the new rate.[12]

Implication: Use the lowest prices negotiated by major insurers in local market as the reference point to shop, negotiate, or cap plans' payment rates.

Estimated Savings for Hip & Knee Replacement at Hospital Referral Region Level[12]



Section 1.3: Pricing Dynamics by Plan Segments

Many large commercial insurers also participate in *Medicare Advantage* (MA) and *Medicaid managed care* (MMC) plans.

1. Commercial prices are more than **double** of the MA prices negotiated by the same insurer for the same hospital and service.[13]
   - Insurers pay **4%** higher commercial prices when hospitals are in their MA network. [14]
2. MMC prices vary widely compared to Medicare prices.[15] MMC insurers with large commercial market enrollment negotiate **5%** lower MMC prices for outpatient care, compared to MMC insurers with no commercial market business.[16]

Implications:

- Potential "price-shifting" behavior for insurers operating in multiple market segments.
- Influence commercial prices and affect public budgeting and patient access.

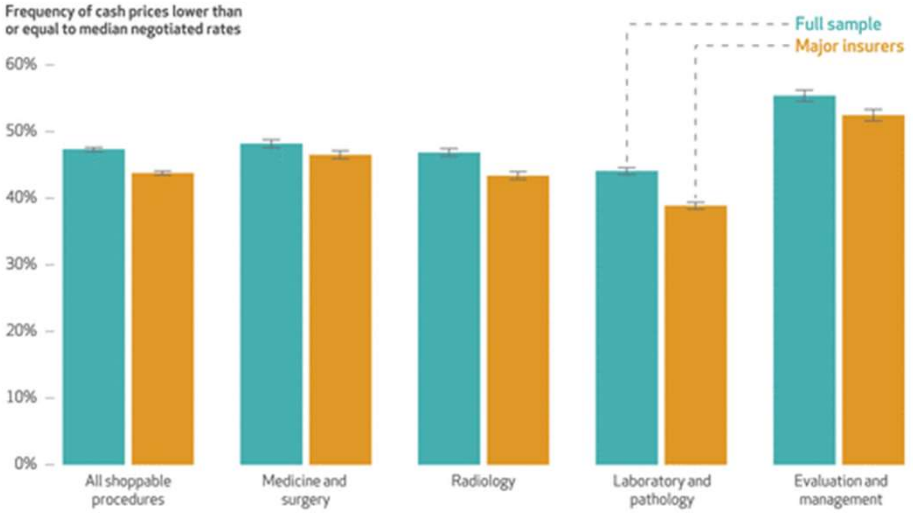
Section 1.4: Self-pay Cash Prices

Out-of-pocket (OOP) payment made by uninsured patients, or patients with CDHP plans before hitting deductibles.

1. For shoppable hospital care, cash prices ≤ median commercial prices (across all plans) for the SAME service at the SAME hospital **47%** of the time.[8]
2. Especially in hospitals with:[8]
   - nonprofit or government owned, located in lower income communities, outside metro areas
   - high billing-related expense.

Implication: Encourage patient price shopping using cash pay (e.g. funded by savings accounts) for routine shoppable services.

Proportion of cash prices less than or equal to median negotiated rates for shoppable care[8]



Section 1.5: Looking Ahead

Work-in-progress projects:

1. Do the price transparency regulations lead to lower commercial prices over time?
2. Do higher prices correspond to better quality or easier access?
3. Pricing dynamics for non-hospital services (e.g. physician, pharmaceutical product).

Section 2: Employer Strategies

Tips for self-insured employers (ERISA plans) concerning about their health spending:

1. *Spending* = $\sum_i Quantity_i \times Price_i$ + *Admin fee*. Price is often overlooked.
2. Know the price you are paying for individual services.
3. Find out competitive prices in your local area. Use the **lowest market prices** as a reference point to:[12]
   - Cap your plan's payment rate
   - Directly negotiate prices with providers, individually or via purchasing coalitions
   - Shop across 3rd party ASO plan carriers, compare and ask for "price match"
4. Incentivize employees (especially CDHP enrollees) to access cost-effective providers for routine & shoppable services by:
   - Providing transparent pricing information
   - Encouraging price shopping and cash pay (if cheaper)
   - Financial rewarding (lower patient cost-sharing, contribution to savings account)

Section 3: Scope of the 2 Price Transparency Data

	Hospital Disclosed Data[5]	**Insurer Disclosed Data**[6]
Federal regulation (effective date)	Hospital Price Transparency Rule (initial Jan 2021, updated rule Jan 2025)	Transparency in Coverage (TIC) Final Rule (July 2022)
Who disclose price?	Hospitals	Commercial insurers/plans
Provider service setting	Hospital facility	Hospital and non-hospital facilities; Professional services
Typical procedures	CMS-designated 70 shoppable services; emergency room visits	Common hospital and non-hospital services, physician care
Type of price (by market segment)	Negotiated prices in *commercial market*, *Medicare Advantage*, and *Medicaid Managed Care*; *Cash* prices;	Negotiated prices in *commercial market*
Measure of price value	Hospital – Service – Insurer – Plan	Provider – Service – Insurer – Plan

Section 3.1: Data Strengths

1. Enormous and representative price information [17]
   - Hospital: 83% of the 5,000+ hospitals nationwide
   - TIC: 200+ insurers, including the 5 national carriers (BCBS, CVS, Cigna, Elevance, United Healthcare)
2. Granular price measure identifying individual [18]
   - Provider (facility, clinician)
   - Service (DRG, CPT/HCPCS)
   - Insurer, plan
3. Publicly available; Up-to-date disclosure with little lag
4. Price values for common services consistent with commercial claims data [19]

Section 3.2: Data Limitations[20]

1. Subject to disclosure compliance, potential measurement errors
   - e.g. prices disclosed by providers not delivering such service (zombie rates)
2. Not all prices are directly comparable
   - not dollar-based prices, not fee-for-service mechanism
3. Lack of non-pricing information
   - utilization, quality, patient characteristics
4. Data has enormous size and complicated structure
   - require significant computational resources for data storage, process, and analysis

Section 3.3: Best Practices for Analysis

1. Start with prices for common procedures, disclosed by major insurers, or larger hospitals [8,11,12]
2. Standardize prices at provider – procedure – insurer level, using median prices if multiple values[12]
   Then go to more granular level, if needed.
3. Trim-off extreme price values (e.g. top and bottom 1%) [9-12]
4. Log-transformed model to address the right skewness of prices [9-11]
5. Validation (price, provider, insurance). Merge with external data for non-pricing measures:[8, 12]
   - Provider characteristics
   - Insurance enrollment
   - Utilization and quality outcomes
   - Aggregated patient & geographic information

Section 4: Contact, Disclaimer

Contact me if you want to discuss more about data, research, or technical consulting:

- Dr. Yang Wang ywang406@jhu.edu
- LinkedIn: www.linkedin.com/in/yang-wang-jhsph; Twitter: @YangWang_JHU
- Personal website: https://yangwanghealthecon.github.io/
- Johns Hopkins Faculty Profile: https://publichealth.jhu.edu/faculty/4431/yang-wang

My research is funded by Arnold Ventures, and in collaboration with Dr. Ge Bai, Dr. Gerard Anderson, and other members from Johns Hopkins – Arnold Venture lowering private sector healthcare price grant.

Information and opinions expressed here are my own and not necessarily those of Johns Hopkins University or Arnold Ventures.

Section 4: Reference

1. Anderson GF, Hussey P, Petrosyan V. It's still the prices, stupid: why the US spends so much on health care, and a tribute to Uwe Reinhardt. Health Aff (Millwood). 2019;38(1):87-95.
2. Cooper Z, Craig SV, Gaynor M, Van Reenen J. The price ain't right? hospital prices and health spending on the privately insured. Q J Econ. 2019;134(1):51-107.
3. Wang Y, Whaley CM, Bai G. Healthcare Price Transparency: Research Findings and Implications for Policy and Practice. J Gen Intern Med (2025).
4. Perry MJ. Chart of the Day…. or Century? American Enterprise Institute. July 23, 2022. Accessed June 4, 2024. https://www.aei.org/carpe-diem/chart-of-the-day-or-century-8/.
5. Centers for Medicare and Medicaid Services. Medicare and Medicaid programs: CY 2020 hospital outpatient PPS policy changes and payment rates and ambulatory surgical center payment system policy changes and payment rates. Price transparency requirements for hospitals to make standard charges public. Fed Regist. 2019; 84(229): 65524-65606.
6. Transparency in Coverage. Centers for Medicare and Medicaid Services. October 26, 2020. https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/CMS-Transparency-in-Coverage-9915F.pdf
7. Whaley CM, Kerber R, Wang D, Kofner A, Briscombe B. Prices Paid to Hospitals by Private Health Plans: Findings from Round 5 of an Employer-Led Transparency Initiative. RAND Corporation; 2024.
8. Wang Y, Meiselbach MK, Cox JS, Anderson GF, Bai G. The Relationships among Cash Prices, Negotiated Rates, and Chargemaster Prices for Shoppable Hospital Services. Health Aff (Millwood). 2023;42(4): 516-525.
9. Wang Y, Plummer E, Wang Y, Cram P, Bai G. Comparison of Commercial Negotiated Price and Cash Price Between Physician-Owned Hospitals and Other Hospitals in the Same Hospital Referral Region. JAMA Netw Open. 2023;6(6):e2319980.
10. Wang Y, Wang Y, Plummer E, Chernew ME, Anderson G, Bai G. Facility Fees for Colonoscopy Procedures at Hospitals and Ambulatory Surgery Centers. JAMA Health Forum. 2023;4(12):e234025.
11. Wang Y, Meiselbach MK, Xu J, Bai G, Anderson G. Do Insurers with Greater Market Power Negotiate Consistently Lower Prices for Hospital Care? Evidence from Hospital Price Transparency Data. Medical Care Research and Review. 2024;81(1):78-84.
12. Wang Y, Xu J, Anderson G. Within-Hospital Price Gaps Across National Insurers. JAMA Netw Open. 2024;7(12):e2451941.
13. Meiselbach MK, Wang Y, Xu J, Bai G, Anderson GF. Hospital Prices For Commercial Plans Are Twice Those For Medicare Advantage Plans When Negotiated By The Same Insurer. Health Aff (Millwood). 2023;42(8): 1110-1118. 10.
14. Marr J, Meiselbach M, Polsky D. Price-Shifting? Spillovers of Medicare Advantage Network Inclusion on Hospital Prices Paid By Commercial Insurers. 13th Annual Conference of American Society of Health Economists. https://ashecon.confex.com/ashecon/2024/meetingapp.cgi/Paper/15483
15. Marr J, Wang Y, Xu J, Bai G, Anderson G, Meiselbach MK. Hospital Prices in Medicaid Managed Care. JAMA Netw Open. 2023;6(11):e2344841.
16. Wang Y, Marr J, Xu J, Meiselbach MK. Commercial Insurers' Market Power and Hospital Prices in Medicaid Managed Care. Health Serv Res. 2024; 1-6.
17. Moving into 2024: State of Price Transparency. Turquoise Health. Jan 4, 2024. https://blog.turquoise.health/moving-into-2024-state-of-price-transparency/
18. Wang Y, Xu JF, Meiselbach MK, Wang Y, Anderson G, Bai G. Insurer Price Transparency Rule: What Has Been Disclosed? Health Affairs Forefront. February 2023.
19. Wang Y, Meiselbach M, Anderson GF, Bai G. Hospital Pricing Information Consistent Between Transparency-In-Coverage Data And Other Commercial Data Sources. Health Affairs Forefront. November 2023.
20. Wang Y, Wang Y, Liu A, Anderson GF, Bai G. How to Analyze and Improve the Usability of Insurer Price Transparency Data? Health Affairs forefront. May 2023.