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ISSUE BRIEF

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Price Markups for Clinical Labs: Employer-based Insurance Pays Hospital Outpatient Departments 3X Than Physician Offices and Independent Labs for Identical Tests

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Laboratory tests are a central component of health care in the United States. Crucial to preventing, diagnosing, or monitoring myriad health conditions, clinical lab tests are the most common health care service in the US. Approximately 14 billion tests are ordered annually and performed by approximately 260,000 laboratories. Medical decisions often are dependent on results from clinical lab tests, and, by their very nature, these tests are standardized to be consistent regardless of clinical settings. Our research finds, however, that labs billed by hospital outpatient departments are typically priced three times higher than those from an independent laboratory (**Table 1**). We observe similar magnitudes between hospital outpatient departments and professional offices (**Appendix Table 1**).

Key Findings

→ Lab prices in hospital outpatient departments were 3x higher than independent laboratories and physician offices and varied more widely.

→ Despite accounting for smallest share (29%) of ESI use, spending at hospital outpatient departments accounted for majority (60%) of ESI lab spend in 2022.

→ From 2012 to 2022, clinical lab prices decreased at independent laboratories but increased at hospital outpatient departments.

Table 1: Prices Paid for Common Lab Services by Setting, 2022

	Price per Lab Test				
	Independent Lab		Hospital Outpatient Dept.		Price Markup Ratio*
MOST COMMON LABS	Median	IQR **	Median	IQR **	
Lipid Panel	$9.73	$13.34	$35.33	$59.53	3.63
Comprehensive Metabolic Panel	$8.35	$2.01	$51.17	$116.33	6.13
Complete Blood Count, with diff WBC	$6.60	$1.64	$34.71	$57.61	5.26
Hemoglobin; glycosylated (A1c)	$8.13	$1.65	$29.30	$41.70	3.60
Thyroid Stimulating Hormone (TSH)	$14.06	$2.91	$46.00	$64.19	3.27
General Health Panel	$24.59	$6.73	$129.34	$192.96	5.26
Vitamin D testing	$24.81	$4.97	$71.55	$80.99	2.88
Urinalysis, automated, with microscopy	$2.65	$0.49	$26.61	$46.18	10.04
Thyroxine Free	$7.55	$1.47	$30.01	$47.72	3.97
Strep A (infect agent antigen detection)	$16.53	$12.02	$50.36	$57.92	3.05
Urine Culture, Bacterial	$6.87	$1.51	$31.81	$52.28	4.63
Urinalysis, automated, without microscopy	$1.91	$0.37	$15.58	$36.41	8.16
Basic Metabolic Panel	$6.68	$2.45	$44.23	$90.30	6.62
OTHER LABS	$10.10	$11.24	$31.14	$55.88	3.08
ALL LABS	**$9.37**	**$6.11**	**$34.23**	**$61.27**	3.65

**Price Markup Ratio is calculated as ratio of the hospital outpatient department price to the independent lab median price. Prices are the amounts paid on claims.*
***IQR denotes inter-quartile range calculated as difference of price at 75th percentile to price at 25th percentile.*

Source: HCCI commercial claims data

Background

Previous Health Care Cost Institute (HCCI) research has shown that a medical service received in a hospital outpatient department typically has a higher price than the same service performed in a physician's office. Unlike surgeries or other procedures, where clinical care may differ across settings due to physician practice or quality or patient complexity, such variation should not exist among clinical lab tests. Analysis of most non-emergent clinical lab tests on a specimen, such as a blood or urine sample, is identical regardless of factors such as where the test is performed or patient risk.

In this brief, we compare prices (as determined by total payments on claims) for clinical lab tests between hospital outpatient departments (25% of tests in our study) and physician offices and independent labs (75% of tests in our study) among individuals with employer-based health insurance. This analysis uses HCCI's unique commercial claims dataset, which contains claims for more than 50 million Americans annually. In addition to analysis of individual clinical lab tests, we also examined variation across five broader categories of lab tests based on the CMS Restructured BETOS Classification System:

- Clinical chemistry tests (e.g., lipid panel)
- Bacterial culture tests (e.g., urine culture)
- Blood count tests (e.g., complete blood count)
- Immunoassay tests (e.g. Strep A test)
- Drug tests (e.g., urinary drug screening)

Our final study sample included 198 million lab tests in 2022. Overall, spending on this sample of clinical lab tests (which represents about a third of the claims for these services among people with employer-sponsored insurance) was close to $6.2 billion in 2022, with 60% of total spending on outpatient hospital-based labs. Further details of our analytical methods can be found in the Methods note at the end of the brief.

Clinical lab prices in hospital outpatient departments were multiples higher and more varied

Using HCCI's commercial claims data, our analysis finds that clinical lab tests performed in a hospital outpatient department (including on-and off-campus locations) were typically three to five times higher than those in a physician's office or independent laboratory. This setting-based markup (i.e., ratio between median prices by setting) varied by test.

The two most common lab tests – lipid panel and comprehensive metabolic panel – illustrate the higher outpatient prices. The median price of a lipid panel in a hospital outpatient department was $35 compared to $9.73 in an independent laboratory. The median price of a comprehensive metabolic panel was $51 when performed in a hospital outpatient department; the same test was $8.35 in an independent laboratory– a five-fold difference (**Table 1**). This analysis also shows that clinical lab prices in hospital outpatient departments varied more widely than prices among independent laboratories. Specifically, prices for a comprehensive metabolic panel performed in a hospital outpatient department had an interquartile range (IQR) – the difference between the 75th percentile price and the 25th percentile price - of $116. In contrast, prices in independent laboratories had an IQR of $2. Similar magnitudes of price variation exists for all laboratory tests in our sample.

Table 2: Prices Paid by Lab Category and Setting, 2022

	Median Price per Lab Test		
	Independent Lab	Hospital Outpatient Dept.	Price Markup Ratio*
Clinical Chemistry	$10.14	$38.08	3.76
Bacteria Culture	$6.87	$34.43	5.01
Blood Count	$7.43	$31.08	4.18
Drug Tests	$56.00	$121.56	2.17
Immunoassays	$12.19	$44.99	3.69

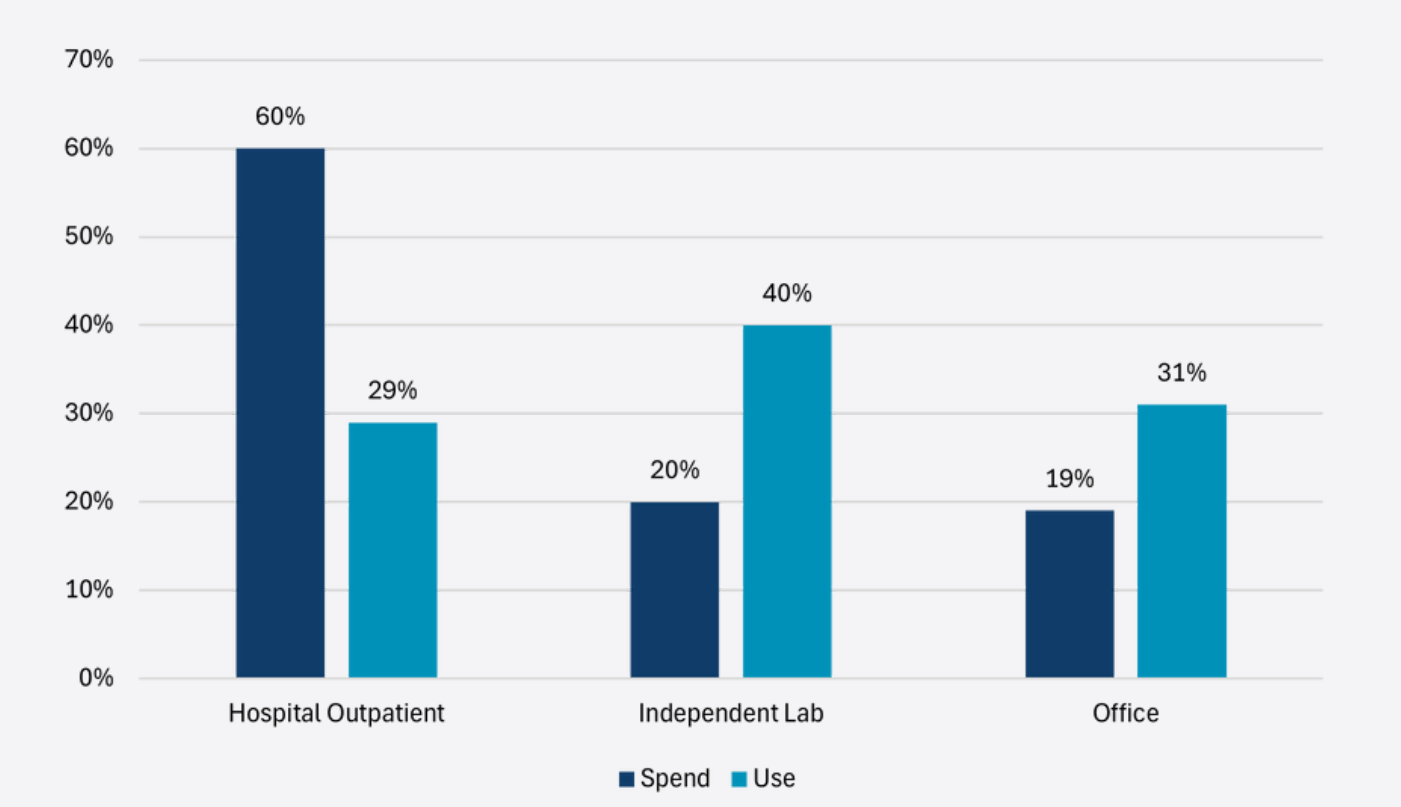
**Price Markup Ratio is calculated as a ratio of the hospital outpatient department price to the independent lab median price. Prices are the total amounts paid on claims.*

Source: HCCI commercial claims data

In addition to looking at the median price for a specific laboratory test, we also calculated a price per lab (calculated as total payments/utilization) for five categories of tests. Across all five categories, the price per lab was greater when laboratory tests were conducted in hospital outpatient departments than in independent labs. The markup was highest for bacterial culture and blood count tests, where the price per lab was five times higher in the outpatient department than in an independent lab. The greatest dollar differences in these price markups were among toxicology drug lab tests (over a $65 difference), although the price per lab in all settings was higher for this category of tests (**Table 2**). We observe similar magnitude in price markups between hospital outpatient departments and physician offices (**Appendix Table 2**).

Despite accounting for smallest share (29%) of ESI laboratory use, hospital outpatient department accounted for majority (60%) of ESI laboratory spending in 2022

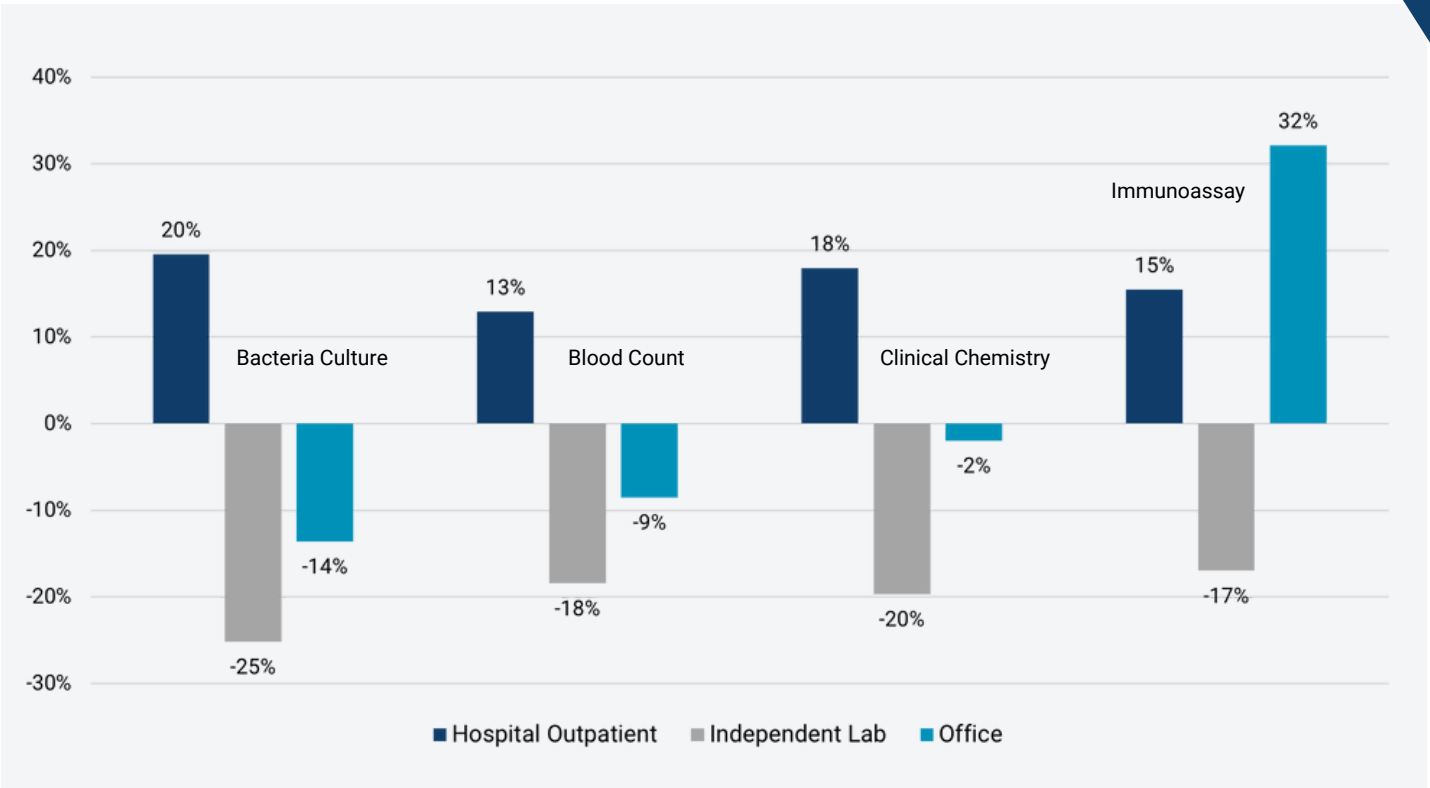
Figure 1: Share of ESI laboratory spending and use by site of care, 2022



Despite hospital outpatient departments accounting for 29% of total ESI laboratory use in 2022, they accounted for 60% of total ESI laboratory spending. The share of laboratory tests performed in hospital department among people with ESI grew from 55% in 2012 to 60% in 2022. Independent laboratories account for most of the ESI laboratory use (40%) and just 20% of total ESI laboratory spending in 2022. Spending and use of laboratory tests in physician offices among people with ESI were similar to those in independent labs.

From 2012 to 2022, independent laboratory prices decreased while hospital outpatient department laboratory prices increased

Figure 2: Change in lab prices by site of care and test category



Between 2012 and 2022, our analysis shows that median price per lab for the five broad categories decreased at independent laboratories and physician office settings. The price decrease over this period was faster among labs rendered at independent laboratories. At the same time, average price per lab in hospital outpatient departments increased (**Figure 2**). For example, the average price for blood count tests between 2012 and 2022 decreased by 18% at independent laboratories and 9% at physician offices but increased by nearly 13% at hospital outpatient departments.

Conclusion

Among people with employer-sponsored insurance, we observe substantially higher prices paid for common lab tests when these tests were performed in hospital outpatient departments (including on and off-campus locations) compared to when they were performed in independent labs and physician offices. The price differences across settings are striking since most clinical lab tests on a specimen are standardized and not expected to vary as much by setting as other types of health care services, which can incorporate other factors such as patient complexity.

The higher outpatient hospital-based lab test prices likely reflect broader market dynamics, including hospital and health system consolidation. Previous research has also found that vertical integration (health system acquisitions of provider group) has led to patient steering towards health systems for health care use.

The impact of laboratory prices in employer-sponsored insurance expands beyond the commercial sector. Medicare payment for clinical laboratory services is based on private payer rates. In fact, reimbursement rates under Clinical Laboratory Fee Schedule (CLFS) are calculated based on the weighted median of private payer rates. Under The Protecting Access to Medicare Act (PAMA), CMS updates the payment rates using private payer amounts every 3 years. However, data on private payer rates was last collected for the 2017 reporting period and, as a result, current Medicare laboratory reimbursement rates are based on commercial rates from January 1, 2016, to June 30, 2016. The next reporting period for private payer payment data is scheduled for the first quarter of 2025 and will be based on laboratory payments between January 1, 2019, to June 30, 2019. This study found consistent price decreases among independent and office-based laboratory tests by commercial payers since 2012. Accordingly, the lack of more contemporaneous laboratory test prices means that Medicare payments rates are higher than they otherwise would be.

In many markets, neither insurers nor employers have the market power to negotiate with hospital systems substantially lower prices. Where negotiations are possible, health insurers and self-insured employers may also have the opportunity to limit site-based payment differentials for their enrollees and employees. Public policy interventions also may be an avenue for lower prices for hospital outpatient-based services, including labs. Such policies have the potential to protect patients from unexpected price markups. They also create an opportunity to lower insurance premiums and overall national health spending in private markets and Medicare.

Appendix

Appendix 1: Prices Paid for Common Lab Tests by Setting, 2022

	Price per Lab Test				
	Physician's Office		Hospital Outpatient Dept.		Price Markup Ratio*
MOST COMMON LABS	Median	IQR **	Median	IQR **	
Lipid Panel	$12.72	$8.55	$35.33	$59.53	2.78
Comprehensive Metabolic Panel	$10.03	$7.87	$51.17	$116.33	5.10
Complete Blood Count, with diff WBC	$7.77	$4.92	$34.71	$57.61	4.47
Hemoglobin; glycosylated (A1c)	$9.48	$6.73	$29.30	$41.70	3.09
Thyroid Stimulating Hormone (TSH)	$16.00	$10.87	$46.00	$64.19	2.88
General Health Panel	$30.68	$16.66	$129.34	$192.96	4.22
Vitamin D testing	$25.35	$14.01	$71.55	$80.99	2.82
Urinalysis, automated, with microscopy	$3.17	$2.15	$26.61	$46.18	8.39
Thyroxine Free	$7.87	$4.41	$30.01	$47.72	3.81
Strep A (infect agent antigen detection)	$14.58	$6.61	$50.36	$57.92	3.45
Urine Culture, Bacterial	$7.67	$4.60	$31.81	$52.28	4.15
Urinalysis, automated, without microscopy	$2.25	$1.74	$15.58	$36.41	6.92
Basic Metabolic Panel	$8.53	$6.24	$44.23	$90.30	5.19
OTHER LABS	$9.21	$15.77	$31.14	$55.88	3.38
ALL LABS	**$10.25**	**$14.13**	**$34.23**	**$61.27**	3.34

**Price Markup Ratio is calculated as ratio of the hospital outpatient department price to the independent lab median price. Prices are the amounts paid on claims.*
***IQR denotes inter-quartile range calculated as difference of price at 75th percentile to price at 25th percentile.*

Source: HCCI commercial claims data

Appendix 2: Prices Paid by Lab Category and Setting, 2022

	Median Price per Lab Test		
	Physician's Office	Hospital Outpatient Dept.	Price Markup Ratio*
Clinical Chemistry	$10.71	$38.08	3.56
Bacteria Culture	$7.39	$34.43	4.66
Blood Count	$7.78	$31.08	3.99
Drug Tests	$40.00	$121.56	3.04
Immunoassays	$20.26	$44.99	2.22

**Price Markup Ratio is calculated as a ratio of the hospital outpatient department price to the physician office median price. Prices are the amounts paid on claims.*

Source: HCCI commercial claims data

About

ABOUT HCCI

The Health Care Cost Institute is an independent, non-profit research institute. HCCI's mission is to get to the heart of the key issues impacting the U.S. health care system by using the best data to get the best answers. HCCI stands for truth and consensus around the most important trends in health care, particularly those economic issues that are critical to a sustainable, high- performing health system. Our values are simple: health care claims data should be accessible to all those who have important questions to ask of it. Health care information should be transparent and easy to understand. All stakeholders in the health care system can drive improvements in quality and value with robust analytics.

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Solely funded by philanthropists Gary and Mary West, West Health is a family of nonprofit and nonpartisan organizations, including the Gary and Mary West Foundation and Gary and Mary West Health Institute in San Diego and the Gary and Mary West Health Policy Center in Washington, D.C. West Health is dedicated to lowering healthcare costs to enable seniors to successfully age in places with access to high-quality, affordable health and support services that preserve and protect their dignity, quality of life and independence.

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