Chicago provider market trends:

Key considerations for employers

Avalere Health | June 2025

Avalere
Part of Avalere Health

1201 New York Ave, NW
Washington, DC 20005

P | 202.207.1300
avalere.com

Table of contents

Funding for this research was provided by Duly Health and Care. Avalere Health retained full editorial control.

Avalere

Executive summary

Background

Over the last several decades, the United States healthcare landscape has seen a significant shift of formerly independent physician practices joining health systems, as well as mergers and acquisitions between health systems. While similar healthcare consolidation trends have been present in Chicago, Illinois, a unique confluence of regional factors, including the presence of several large health systems and a dominant commercial payer, has disproportionately impacted the Chicago market. These factors, as demonstrated in this paper, have resulted in high healthcare costs for the region's employers and beneficiaries and underutilization of community-based physicians, who represent more cost-effective and accessible care. At the same time, physician reimbursements from Medicare have declined 33% from 2001 to 2025 after adjusting for inflation in practice costs—further exacerbating the challenges physicians face to remain independent.[1]

This analysis uses multiple sources of claims data to derive market-level learnings—including analyses of (1) total Medicare fee-for-service (FFS) expenditures and quality metrics by specialty, as well as (2) site-of-care differentials for the most common and expensive services in the commercial market—to detail the impact of health system consolidation in the Chicago healthcare market on employers and its implications for provider contracting and benefit design.

While this analysis was specific to the Chicago market, its intention—to highlight differences in care patterns and outcomes between hospital-affiliated physicians and their scaled, community-based alternatives—can be applied to other markets that may be experiencing similar rises in costs amid physician consolidation. In this analysis, Duly Health and Care (Duly), which describes itself as the largest independent, multispecialty physician-led medical group in the Midwest,[2] serves as a case study for a community-based private practice.

Methodology

Medicare

To construct the beneficiary comparison groups, Avalere Health first aligned physicians to one of two designations: either hospital-affiliated, using the IQVIA OneKey dataset ("hospital"), or

1 American Medical Association. Medicare physician payment continues to fall further behind practice cost inflation. January 2025. Available here: https://www.ama-assn.org/system/files/2025-medicare-updates-inflation-chart.pdf

2 Duly Health and Care. Our History. Available here: https://www.dulyhealthandcare.com/our-history

"Duly," based on a Duly-provided National Provider Identifier dataset of employed providers. All providers not assigned to either Duly or hospital affiliation were excluded from the analysis.

Next, Avalere Health used 100% FFS Medicare claims data to attribute Medicare beneficiaries to a physician cohort. For each of the 6 specialties studied (primary care, cardiology, gastroenterology, oncology, orthopedics, and urology), each beneficiary was attributed to the one cohort with which they incurred the greatest number of claims in 2023. All results are risk-adjusted. A secondary analysis was also undertaken to determine whether a greater impact could be observed when a beneficiary received care from multiple providers in the same group.

Commercial

Avalere Health designed a complementary commercial analysis at the service code level to characterize the pricing landscape in the Chicago market for a set of key services across a similar set of specialties. The commercial analysis leveraged a nationally representative source of commercial, fully-adjudicated (paid) claims data (2019–2024) to establish Chicago market rates, as well as Turquoise Health payer transparency data (March 2025) to verify rate benchmarks for Duly and other Chicago providers. Results are not risk-adjusted.

Key findings

Chicago market

- The significant number of large health systems in the Chicago metropolitan area has contributed to a higher proportion of specialty physicians affiliated with hospital systems than nationally (58% in Chicago versus 45% nationally, across five specialties analyzed). The greatest difference is in gastroenterology (GI): 65% of specialists in Chicago are affiliated with hospitals, compared to 32% of specialists nationwide.
- On the payer side, the confluence of Health Care Service Corporation (HCSC)'s market dominance—controlling nearly 75% of Illinois' individual market and 80% of the group market—and the predominance of large, self-insured employers likely shape market dynamics in Chicago. However, the impact of these dynamics warrants further study, as this analysis focuses on providers.

Medicare results

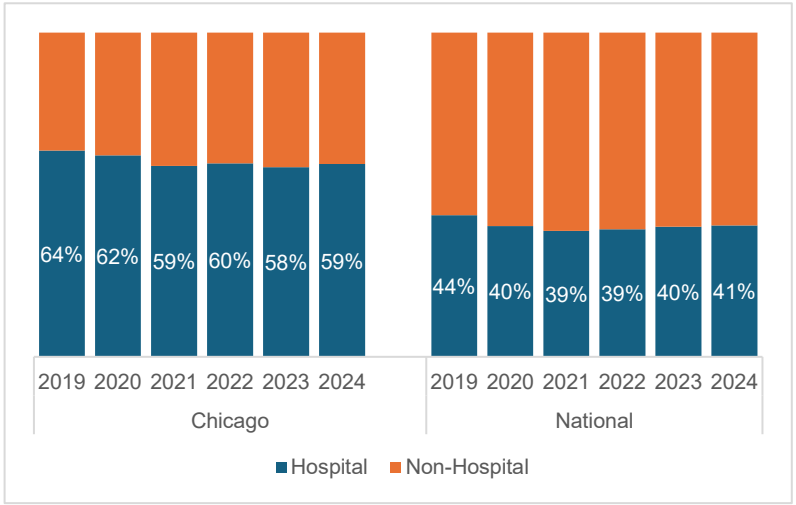
- The 2023 single-specialty analysis shows that Duly beneficiaries had lower total risk-adjusted annual Medicare expenditures by an average of $7,777 (24.8%) across specialties compared to beneficiaries of hospital-affiliated physicians. The difference ranged from 17.1% ($6,190) lower in gastroenterology to 32.1% ($19,510) lower in oncology.
- Beneficiaries attributed to Duly physicians had 14.8% fewer inpatient (IP) days, 12.3% fewer emergency department (ED) visits, and a 4.5% reduction in all-cause readmissions than beneficiaries attributed to hospital-affiliated physicians. They also had 5.1% more follow-up visits within 14 days of discharge. All results are risk-adjusted.

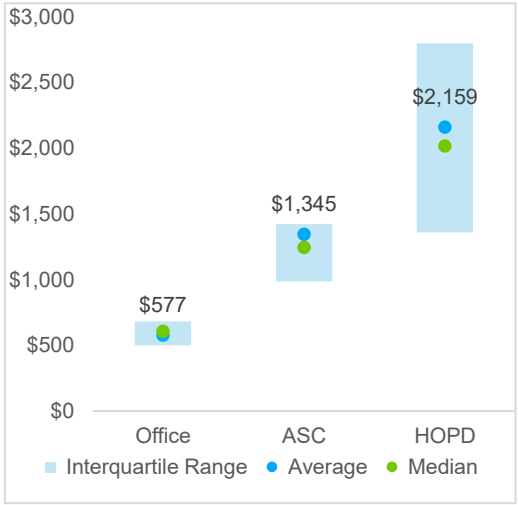
- Beneficiaries who received coordinated (Duly primary *and* specialty) care saw further reductions in risk-adjusted total Medicare expenditures. For example, in addition to the 17.1% difference between hospital and Duly GI cohorts, patients of Duly PCP *and* GI physicians saw an additional 36.1% savings (a total of $17,021) compared to hospital-affiliated GI patients. Across specialties, they also had fewer IP days, ED visits, and a lower rate of all-cause readmissions, as well as more follow-up visits within 14 days of a discharge.

Commercial results

- In 2024, utilization of hospital settings for core services such as screenings, joint replacements, and imaging was consistently higher in Chicago than nationally, inflating employer costs in already-expensive areas such as GI and musculoskeletal (MSK) care.
- For example, colonoscopies were about 20% more likely to be performed in a hospital setting compared to the national average. In 2024, a hospital outpatient department (HOPD) visit for a diagnostic colonoscopy cost, on average, two to three times more than a visit to an office ($2,159 vs. $577, respectively), as shown in Figure 1. A visit to an ambulatory surgical center (ASC) for the same service was $1,345, still only two-thirds of the HOPD procedure.
- Imaging services, which are critical for the health of employed populations and can be performed in low-cost settings, were performed in hospitals more than 70% of the time in Chicago, despite being more expensive compared to the office setting. For example, a bilateral mammogram screening in the HOPD ($343) is 55% more expensive compared to the office ($222). Similar trends occur across other high-volume imaging procedures.

Figure 1. Illustrative findings: Diagnostic colonoscopy (45378) hospital vs. non-hospital utilization, Chicago and national, 2024; Chicago commercial 2024 allowed amounts





Key takeaways for employers and policymakers

Comparative analyses of Medicare and commercial data highlight that non-hospital, multispecialty groups can offer more cost-effective, coordinated care, reducing overall healthcare expenditures.

Employers, payers, and policymakers can influence how and where care is delivered to curb cost growth in Chicago. While the current system steers patients toward costly hospital settings, evidence indicates that private practices deliver the same or better outcomes at significantly lower costs. Employers and payers may consider developing innovative provider-level partnerships, while policymakers and researchers can continue to study the merits of site-neutral payments and greater price transparency to support lower costs for employers, employees, and taxpayers.

This white paper aims to inform employers of the downstream impact of consolidation in the Chicago healthcare market. It uses multiple sources of claims data to derive market-level insights to aid employers in assessing best practices. The shrinking presence of independent provider groups due to increased provider consolidation in the region over the last several years, the dominance of a single payer in the metropolitan area, and an increase of hospital-affiliated providers has resulted in a higher share of care in hospitals, a setting of care which is typically more expensive than other settings.

Background: The growing burden of healthcare costs on employers

National perspective—healthcare costs exceed inflationary trends

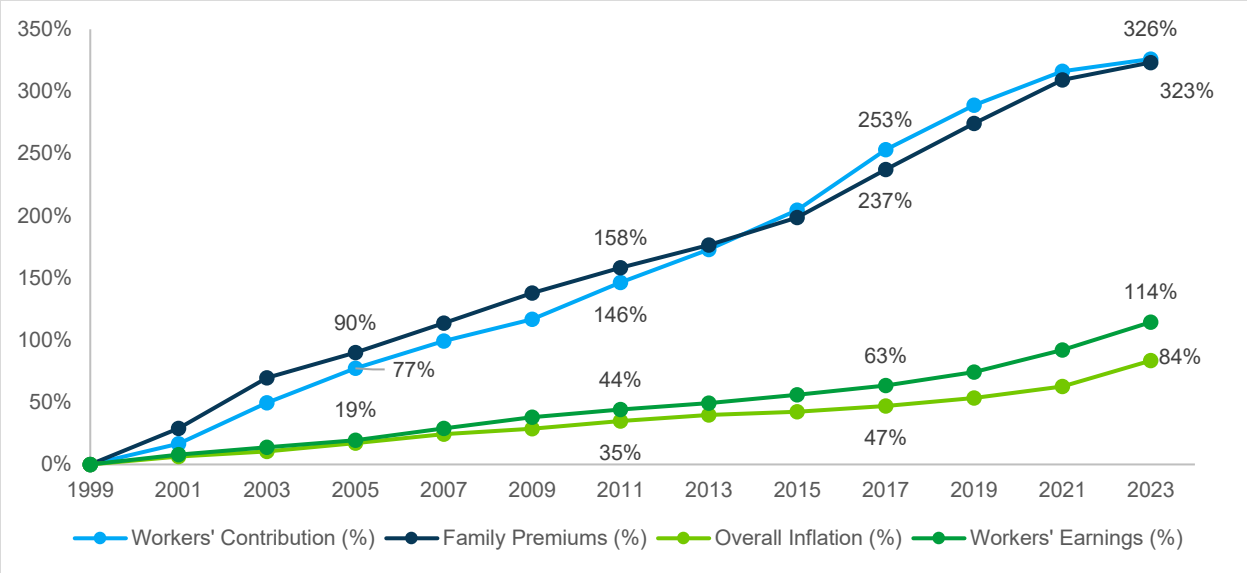
US healthcare costs have been rising over the last decade, impacting employers and employees alike. Medical inflation has outpaced the Consumer Price Index for All Urban Consumers since 2000: the price of all goods and services has increased by roughly 86% since 2000, while the price of medical care has increased by over 120%.[3]

Insurance coverage itself has also become more expensive, with employers expecting the cost of healthcare to rise 9.2% in 2025.[4] The national average cost of healthcare premiums for family coverage increased by almost 50% between 2013 and 2023, from $16,029 to nearly $24,000.[5] These increases impact employers, who must consider the impact of rising healthcare costs on the total benefit package they can offer to their employees—particularly given the high priority employees place on access to health-related benefits as a reason to accept and remain at a job.[6] Furthermore, these increasing costs are partially passed on to employees in the form of greater proportional contributions to their healthcare premiums, leading to degradation of take-home pay, future wage growth, and retirement savings. In 2019, healthcare premiums accounted for 17.7% of a worker's total compensation, more than twice the contribution three decades prior.[7] In addition to growth in premium contributions, employer changes to plan design may increase employees' out-of-pocket costs for medical expenses, resulting in further wage deterioration.[8]

3 Peterson-KFF Health System Tracker. 2024. Available here: https://www.healthsystemtracker.org/chart-collection/what-are-the-recent-trends-in-health-utilization-and-spending/
4 Aon. 2024. Available here: https://www.aon.com/en/insights/reports/2024-global-benefits-trends-study.
5 Agency for Healthcare Research and Quality. 2025. Available here: https://www.ahrq.gov/sites/default/files/wysiwyg/cpi/about/mission/budget/2025/fy2025-cj.pdf
6 Society for Human Resource Management. 2024. Available here: https://www.shrm.org/content/dam/en/shrm/research/2023-2024-State-of-the-Workplace-Report.pdf
7 Journal of the American Medical Association. 2024. Available here: https://jamanetwork.com/pages/2024-most-viewed-articles
8 Health Affairs Scholar. 2024. Available here: https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2024.00036

Further, when individuals are faced with higher medical costs, they are more likely to delay or forgo medical care, including prescription drugs. A 2022 Gallup poll found that one in four adults delays or skips care or medicine due to cost concerns.[9]

Figure 2. Growth of health insurance premiums, inflation, and workers' contributions and earnings (1999-2023)[10]



The IL market demonstrates similar cost growth

In IL, cost growth has mirrored national patterns. Among private, large-group employers (i.e., 50 or more employees), average employer contributions toward healthcare premiums have increased by approximately 50% over the past decade. During the same period, employees at these firms have seen their premium contributions for family coverage increase by 27% (over $1,200), with single coverage contributions increasing by 23% (about $300).[11]

No single factor is responsible for the accelerated increase in healthcare prices. Several variables, such as medical inflation and fear of malpractice lawsuits, drive price growth independently and in concert with one another. Over the last decade, one notable contributor to price growth has been healthcare consolidation, particularly with respect to health systems' consolidation of independent providers.

9 Gallup. Four in 10 Americans Cut Spending to Cover Healthcare Costs. August 2022. Available here: https://news.gallup.com/poll/395126/four-americans-cut-spending-cover-healthcare-costs.aspx

10 Bureau of Labor Statistics(a). 2025. Available here: https://www.bls.gov/news.release/pdf/cpi.pdf; Bureau of Labor Statistics(b). 2025. Available here: https://www.bls.gov/opub/mlr/2025/; KFF. 2024. Available here: https://www.kff.org/health-costs/issue-brief/what-are-the-trends-in-health-utilization-and-spending-in-early-2024/

11 Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey (MEPS) Insurance Component (IC). 2025. Available here: https://datatools.ahrq.gov/meps-ic/

Chicago as a case study: How market composition drives costs

The provider consolidation, payer concentration, and provider affiliation found in Chicago make the region a fitting case study to understand the impact of hospital dominance on employer costs. The combination of these factors has resulted in rising healthcare costs and limited the competitiveness of non-hospital affiliated providers; this is further exacerbated by a reimbursement environment in which inflation-adjusted Medicare payments to physicians have declined 33% from 2001 to 2025—while Medicare payments to facilities have outpaced the CPI.[12, 13]

Provider market composition and consolidation

Chicago has been subject to significant hospital consolidation in recent years. In 2018, Advocate Health Care and Aurora Health Care merged to create Advocate Aurora Health; in 2022, the newly integrated system merged with Atrium Health, making it the country's fifth-largest nonprofit health system.[14] Also in 2022, NorthShore University Health System and Edward Elmhurst Health merged into the city's third-largest health system and rebranded as Endeavor Health.[15,16] In 2025, Prime Healthcare purchased eight Ascension Illinois hospitals, along with four senior living and post-acute care facilities and several physician practices.[17]

Despite numerous mergers over the years, Chicago remains home to 33 health systems, which would suggest that a competitive healthcare landscape exists within the metro area.[18] A 2022 KFF review of hospital data found that 47% of markets are controlled by just one or two health systems; by contrast, the top provider in Chicago—Advocate Health—represents 17% of the market share, and the second-largest—Northwestern Medicine—makes up 16%, together totaling just 33% of market share.[19] A cursory analysis would suggest this dispersion of market power across multiple systems would disqualify Chicago as a consolidated market; in a study ranking 183 metropolitan statistical areas (MSAs) by their Herfindahl-Hirschman Index (HHI) level, Chicago ranked 177 out of 183 MSAs and was classified as "unconcentrated" in 2021.[20] However, the HHI measures concentration with respect to the *number* of providers but does not account for concentration in the *type* of provider. Herein lies the uniqueness of the Chicago market, which warrants attention and new strategies from employers.

12 American Medical Association. Medicare physician payment continues to fall further behind practice cost inflation. January 2025. Available here: https://www.ama-assn.org/system/files/2025-medicare-updates-inflation-chart.pdf

13 American Medical Association. Medicare Updates Compared to Inflation (2001-2021). October 2021. Available here: https://www.ama-assn.org/system/files/medicare-pay-chart-2021.pdf

14 Fierce Healthcare. Fierce Healthcare's Fierce 15 of 2024. 2024. Available here: https://www.fiercehealthcare.com/special-reports/fierce-healthcares-fierce-15-2024

15 Healthcare Dive. Private equity investment in healthcare remained steady in 2024: report. 2024. Available here: https://www.healthcaredive.com/news/private-equity-investment-2024-report/740599/

16 Becker's Hospital Review. 2024. Available here: https://beckershealthcare.uberflip.com/i/1529631-december-2024-issue-of-beckers-hospital-review

17 David Muoio. Fierce Healthcare. March 2025. Available here: https://www.fiercehealthcare.com/providers/prime-healthcare-ascension-illinois-close-8-hospital-deal

18 Cause IQ. 2024. Available here: https://www.causeiq.com/help/reports-and-data/

19 Jamie Godwin, Zachary Levinson, and Tricia Neuman. KFF. October 2024. Available here: https://www.kff.org/health-costs/issue-brief/one-or-two-health-systems-controlled-the-entire-market-for-inpatient-hospital-care-in-nearly-half-of-metropolitan-areas-in-2022/

20 Health Care Cost Institute. 2024. Available here: https://healthcostinstitute.org/hcci-originals-dropdown/all-hcci-reports/hcci-2023-24

Commercial payer dynamics

While payer factors are not the specific focus of this analysis, it is important to consider how payers contribute to market-specific dynamics. In Chicago, certain factors may have an outsize impact. These factors include:

- **Heavy payer concentration:** Health Care Service Corporation (HCSC), an independent licensee of Blue Cross Blue Shield (BCBA) doing business as BlueCross BlueShield of Illinois, controls 74.4% of IL's individual insurance market and 78.8% of the group market.[21]
- **Primary payer focus on access: The various** BCBS plans and their subsidiaries prioritize access via a focus on national and regional Preferred Provider Organization plans. As of 2025, they have more than two million providers in network, more than any other commercial payer.[22]
- **Outsize influence of large health systems:** Due to HCSC's priorities and Chicago's geographic breadth, HCSC must prioritize their relationships with providers with the greatest access to patients; historically, that has meant nationally renowned health systems that also serve as both brand pillars and local employers.
- **Predominance of large, self-insured employers:** About 53% of beneficiaries in commercial plans nationwide are enrolled in self-insured plans, compared to about 68% in IL.[23] Additionally, the largest 44 companies in Chicago account for more than 2.2 million employees; these companies all of which employ a minimum of 8,000 individuals, are more likely to be self-insured based on their size.[24]

Given that this paper is focused on provider dynamics, the impact of these and other payer-driven considerations on reimbursement will require additional research.

Provider affiliation: A hypothesis

Despite a lack of consolidation within a particular entity in Chicago, there is still concern that (1) a significant portion of Chicago providers have affiliated with a hospital system model, and (2) this shift in affiliation has driven up costs and limited patient choice with respect to care delivery.

Avalere Health sought to evaluate this two-part hypothesis by comparing 2023 provider affiliation data in the Chicago market with previously reported national data[25] from 2022 across the same set of five specialties.

21 Illinois Department of Insurance. 2024. Available here: https://idoi.illinois.gov/content/dam/soi/en/web/insurance/reports/reports/il-golden-rule-2024-v1.pdf

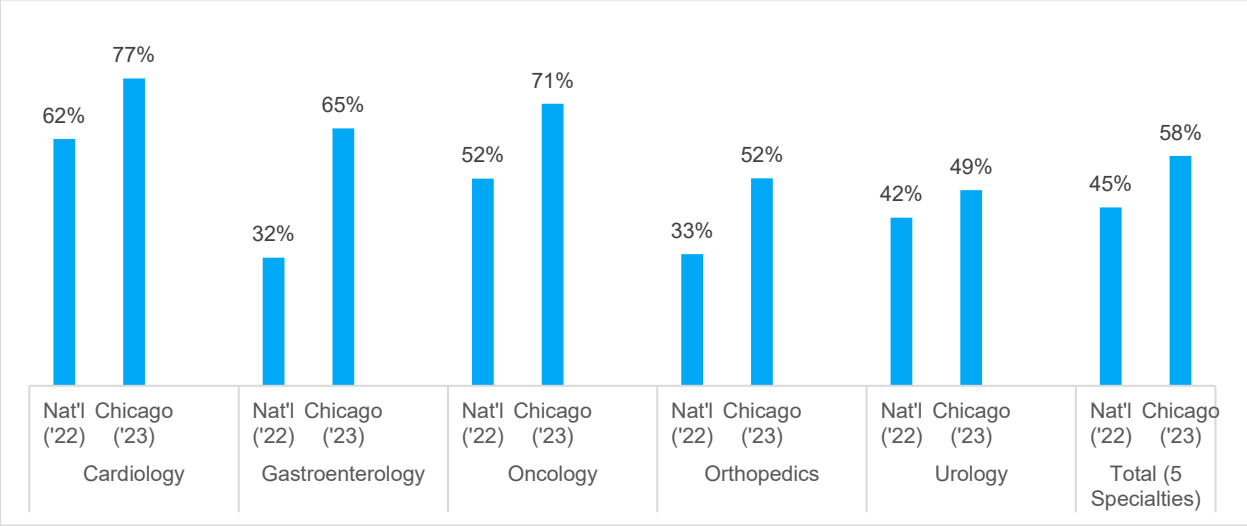
22 Blue Cross Blue Shield. 2025. Available here: https://www.mibluecrosscomplete.com/amslibs/content/dam/microsites/blue-cross-complete/bcc-annual-report-2024.pdf

23 AIS Health Data. 2024. Available here: https://aishealthdata.com/news/fourth-quarter-2024-data-posted-reports-updated; Denominator found using the following variables: "Commercial Risk in State," "ASO in State," "FEHB in State," "Exchange Enrl; in State." Numerator is "ASO in State"

24 Zippia. Largest Companies in Illinois. 2024. Available here: https://www.zippia.com/advice/largest-companies-in-illinois/

25 AIMPA. Medicare Service Use and Expenditures Across Physician Practice Affiliation Models. 2024. Available here: https://aimpa.us/wp-content/uploads/2024/09/Avalere-White-Paper-Medicare-Service-Use-and-Expenditures-Across-Physician-Practice-Affiliation-Models.pdf

Figure 3. Hospital affiliation of physicians by specialty, Chicago and national, 2022 and 2023



Note: While the latest available national analysis is from 2022, historical trends suggest that the trend towards greater hospital affiliation is expected to continue. National data were not available for primary care; therefore, that specialty is not included in the chart.

Figure 3 shows that, across five specialties evaluated and in aggregate, Chicago had a higher proportion of hospital-affiliated physician specialists than the national average, ranging from 7% higher in urology to 33% higher in gastroenterology. These findings support the hypothesis about provider market dynamics, introducing further questions for exploration about the outsize role of health systems in "nonconsolidated" metropolitan areas such as Chicago and their impact on total cost and quality of care.

These circumstances make Chicago an ideal case study for the impact of hospital dominance on a host of relevant outcomes, including total employer and employee contributions to premiums, annual healthcare expenditures, and outcomes metrics, including IP visits and readmission, ED visits, among others. The following analysis evaluates healthcare costs within the Medicare and commercial markets in Chicago, using Duly Health and Care as an example of the type of scaled, non-hospital, multispecialty physician group that can serve as an alternative to hospital care for both physicians and patients.

Analysis roadmap

While this analysis was specific to the Chicago market, its intention—to highlight differences in care patterns and outcomes between hospital-affiliated physicians and their scaled, community-based alternatives—can be applied to other markets that may be experiencing similar rises in costs amid physician consolidation. In this analysis, Duly Health and Care (Duly), which describes itself as the largest independent, multispecialty physician-led medical group in the Midwest,[26] serves as a case study for a community-based private practice.

26 Duly Health and Care. Our History. Available here: https://www.dulyhealthandcare.com/our-history

The initial Medicare FFS analysis compares cost and quality measures between Duly specialists and hospital-affiliated specialists for six specialties: primary care, cardiology, gastroenterology, oncology, orthopedics, and urology.[27] The Medicare sub-analysis then focuses on the benefits of coordinated care—defined in this claims-based analysis as seeing a primary care provider (PCP) and a specialist from the same organization in the same year—on cost and utilization-based outcomes. Primary care was added as a specialty due to its importance to multispecialty practice. The study addresses both Medicare beneficiaries and commercially insured populations.

Next, the commercial analysis focuses on paid claims data to evaluate site-of-care utilization and associated reimbursement for the most common and highest-cost medical services and procedures, with the addition of payer transparency data to demonstrate differences in price between individual entities in the Chicago market.

Both the Medicare sub-analysis and the commercial section pay particular attention to the GI specialty, as it is associated with chronic conditions (including Crohn's disease, ulcerative colitis [UC], and colon cancer) that are increasingly prevalent among both older and younger populations and exceedingly costly to manage. With over 2.4 million Americans living with Inflammatory Bowel Disease (which includes Crohn's and UC) and $41 billion in annual costs, coordinated, proactive GI care is essential to avoid hospitalizations, surgeries, and high out-of-pocket spending. While GI remains a focal point, the analysis also incorporates other services and procedures to provide broader context with comparable results. The full methodology and all relevant findings are found in Appendix A (methodology) and B (results).

Commercial

Avalere Health designed a complementary commercial analysis at the service code level to characterize the pricing landscape in the Chicago market for a set of key services across Duly's top specialties. The commercial analysis leveraged a nationally representative source of commercial, fully-adjudicated (paid) claims data (2019–2024) to establish Chicago market rates, as well as Turquoise Health payer transparency data (March 2025) to verify rate benchmarks for Duly and other Chicago providers. Results are not risk-adjusted.

Medicare fee-for-service (FFS) results: Opportunities for cost savings and improved quality

To assess whether hospital-affiliated physicians drive higher expenditures via utilization in more costly hospital settings, we first analyzed the Medicare FFS market. Aside from being a sizable

27 These specialties were assessed due to their alignment with previously published literature, which identified these six specialties primarily on account of a) the ability to observe meaningful utilization in the Medicare population and b) the ability to assess SOC dynamics for high-cost, high-volume services (i.e., surgical and imaging-intensive specialties). Primary care was added as a specialty due to its importance to multispecialty practice.

and high-risk population worthy of analysis, the availability of longitudinal, beneficiary-level claims data for FFS Medicare beneficiaries allows for a comprehensive, risk-adjusted assessment of per-beneficiary healthcare expenditures for an entire year. Particularly when married with physician ownership data, this type of analysis provides a thorough picture of how consolidation can contribute to rising healthcare costs, even in the absence of negotiated prices.

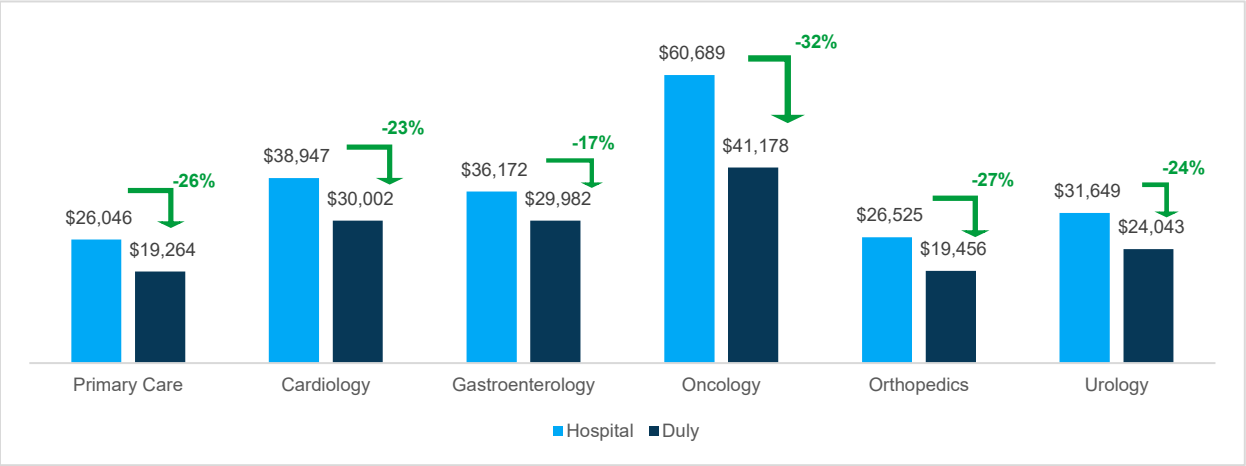
Total and hospital-based expenditures

A higher concentration of hospital-affiliated physicians, as observed in Chicago, has direct healthcare cost implications. Recent work[28] has shown that, across five specialties at the national level, individuals receiving care from hospital-affiliated physicians tend to have higher per beneficiary per year total Medicare expenditures than those receiving care from non-hospital-affiliated physicians. They also receive a greater proportion of care in hospital settings. While perhaps unsurprising that the patients of hospital-affiliated physicians are more likely to receive care in a health system setting, the resulting increase in total annual expenditures has significant consequences for overall Medicare spending, with likely spillover into the commercial market. In this analysis, we sought to assess whether Chicago, a large metropolitan area with multiple large health systems, experienced similar (if not more pronounced) cost trends.

To assess both the impact of dominant health system presence and the value proposition of a non-hospital, community-based multispecialty provider like Duly, we analyzed Medicare FFS cost and utilization data across six selected specialties in the Chicago area. This evaluation aimed to identify spending trends and to quantify the difference in Medicare expenditures between patients seen by Duly physicians (“Duly”) and those treated by hospital-affiliated providers (“hospital”).

28 AIMPA. Medicare Service Use and Expenditures Across Physician Practice Affiliation Models. 2024. Available here: https://aimpa.us/wp-content/uploads/2024/09/Avalere-White-Paper-Medicare-Service-Use-and-Expenditures-Across-Physician-Practice-Affiliation-Models.pdf

Figure 4. Total Medicare FFS expenditures, by specialty, Duly vs. hospital, 2023



Note: Results were statistically significant ($p < 0.05$) for all specialties.

Figure 4 shows that in 2023, across the selected specialties, patients of Duly physicians had significantly lower total Medicare expenditures than patients of hospital-affiliated physicians, with a weighted average difference of $7,777 (24.8%) per patient. Specialty-specific differences ranged from $6,190 (17%) lower in gastroenterology to $19,510 (32%) lower in oncology.

To identify potential drivers of this discrepancy in cost, we assessed the relative proportion of total annual Medicare spending that occurred in hospital (inpatient and outpatient) settings for each cohort. To that end, Table 1 shows the percentage difference between hospital and Duly patients for the proportion of total expenditures attributable to facility-based (i.e., inpatient and hospital outpatient) settings. This data is also visualized in Appendix B Figure 2.

Table 1. Percentage difference in facility-based expenditures, by specialty, Duly vs. hospital, 2023

Specialty	Hospital		Duly		Unit and percentage difference, Duly vs. hospital facility-based expenditure
	Facility-based expenditure	% of total expenditure	Facility-based expenditure	% of total expenditure	
Primary care	$16,681	64%	$11,723	61%	-$4,957 (-30%)
Cardiology	$27,333	70%	$20,157	67%	-$7,176 (-26%)
Gastroenterology	$24,656	68%	$19,034	63%	-$5,623 (-23%)
Oncology	$40,057	66%	$22,960	56%	-$17,098 (-43%)
Orthopedics	$16,526	62%	$11,197	58%	-$5,328 (-32%)
Urology	$20,728	65%	$13,903	58%	-$6,825 (-33%)

Note: Results were statistically significant ($p < 0.05$) for all specialties.

As seen in Figure 4, Duly patients have lower total expenditures in every specialty studied. Table 1 adds context to that finding by showing that the difference in facility-based expenditures favoring Duly was greater in magnitude than the difference in total expenditures, ranging from 23% lower in gastroenterology to 43% lower in oncology. Given that, on average, services rendered in facility-based (i.e., hospital-based) settings tend to be more expensive than care delivered in other settings (e.g., the clinic/office and the home), a greater proportion of this type of care makes an outsized contribution to total expenditures. Together, these results indicate that hospital care, which is disproportionately favored by hospital-affiliated physicians, represents a key driver of expenditures for Chicago Medicare FFS beneficiaries.

Utilization-based quality measures

Furthermore, the impact of hospital consolidation manifests in a variety of utilization patterns that underlie the demonstrated increase in FFS Medicare expenditures. Four key outcomes measures—inpatient (IP) days, emergency department (ED) visits, the rate of all-cause readmissions within 30 days, and follow-up visits with 14 days of a discharge—have a strong correlation to expenditures and are associated with better clinical outcomes and patient experience.[29, 30, 31, 32]

Specifically, IP days, ED visits, and readmissions represent costly episodes of care that often result from wasteful site-of-care utilization and sub-optimal coordination of care. Relatedly, follow-up visits within 14 days of discharge can encourage coordination of care and discourage readmission. Table 2 shows the differences in these outcomes between Duly patients and hospital patients for the most recent 12-month period of available data (October 1, 2023—September 30, 2024).

29 Yacoub Abuzied, Hassan Maymani, Basim AlMatouq, Oweida AlDosary. Reducing the Length of Stay by Enhancing the Patient Discharge Process: Using Quality Improvement Tools to Optimize Hospital Efficiency. February 2021. Available here: https://meridian.allenpress.com/innovationsjournals-JQSH/article/4/1/44/462477/Reducing-the-Length-of-Stay-by-Enhancing-the

30 Reham Mostafa and Khaled El-Atawi. Strategies to Measure and Improve Emergency Department Performance: A Review. January 2024. Available here: https://pmc.ncbi.nlm.nih.gov/articles/PMC10890971/

31 Jasninder S. Dhaliwal and Ashujot Kaur Dang. Reducing Hospital Readmissions. January 2025. Available here: https://pubmed.ncbi.nlm.nih.gov/39163436/

32 Megan E Price, Nicolae Done, Steven D Pizer. The Relationship Between Follow-up Appointments and Access to Primary Care. March 2020. Available here: https://pmc.ncbi.nlm.nih.gov/articles/PMC7280427/

Table 2. Cost-saving outcomes measures, by specialty, Duly vs. hospital, October 1, 2023—September 30, 2024

Specialty	Hospital	Duly	Unit and percentage difference, Duly vs. hospital
IP days per patient			
Primary care	2.78	2.24	-0.54 (-19.3%)
Cardiology	4.23	3.74	-0.49 (-11.6%)
Gastroenterology	3.81	3.53	-0.28 (-7.4%)
Oncology	4.90	3.96	-0.94 (-19.2%)
Orthopedics	2.20	2.01	-0.19 (-8.6%)
Urology*	3.00	2.75	-0.25 (-8.3%)
ED visits per 1000 Patients			
Primary care	466	390	-76 (-16.3%)
Cardiology	628	541	-87 (-13.9%)
Gastroenterology	545	513	-32 (-5.9%)
Oncology*	496	557	+61 (+12.3%)
Orthopedics*	461	430	-30 (-6.6%)
Urology*	500	478	-23 (-4.5%)
Rate of readmission within 30 days of a discharge			
Primary care	21.4%	19.9%	-1.5% (-7.0%)
Cardiology	23.0%	22.1%	-0.9% (-3.9%)
Gastroenterology	25.4%	24.4%	-1.0% (-3.9%)
Oncology*	27.5%	25.0%	-2.5% (-9.1%)
Orthopedics*	17.7%	17.3%	-0.4% (-2.3%)
Urology*	22.0%	21.9%	-0.1% (-0.5%)
Follow-up visits within 14 Days of a discharge per 1,000 patients			
Primary care	237	247	+11 (+4.5%)
Cardiology	378	401	+23 (+6.2%)
Gastroenterology*	356	386	+30 (+8.4%)
Oncology*	523	473	-50 (-9.6%)
Orthopedics*	233	244	+11 (+4.8%)
Urology	326	358	+32 (+9.7%)

*Result is not statistically significant. All other results are statistically significant at $p < 0.05$.

Several key findings emerged from these comparisons. We observed the greatest percentage difference in IP days in oncology, with cancer patients of hospital-affiliated physicians spending almost an entire extra day in the hospital compared to the patients of Duly physicians. Furthermore, ED visits were most notably reduced in primary care and cardiology, two specialties often responsible for the management of chronic disease. However, ED visits in oncology were greater for Duly patients compared to hospital-attributed patients, though this finding was not statistically significant. Readmission rates were lowest for Duly orthopedics patients, and the greatest difference in readmission rate (on a unit basis and a percentage basis) was in oncology, where Duly patients' readmission rate was 9.1% lower than that of hospital-affiliated patients. Finally, Duly urology patients saw the greatest numeric and percentage increase in follow-up visits, which are associated with reduced readmissions and improved patient experience.[33,34] Notably, in every comparison where the results were statistically significant ($p < 0.05$), Duly outperformed hospitals in the Chicago market. However, while not statistically significant, Duly oncology patients had approximately 10% fewer follow-up visits on average compared to hospital patients.

Together, the Medicare expenditures data and the quality outcomes metrics demonstrate the financial and clinical advantage that community-based groups can offer over hospitals.

Our results show that, in the Chicago market, Medicare beneficiaries who receive most of their care from health systems incur greater costs while suffering relatively poorer outcomes in the form of increased IP days and ED visits, a higher readmission rate, and fewer follow-up visits.

In the Chicago area, the outsized costliness of hospital care, which is borne in part by patients, and the associated reduction in quality can be mitigated when patients receive most of their care from a scaled, private, multispecialty practice.

Medicare sub-analysis: The compounding impact of coordinated care

There is significant evidence to suggest that patients who receive coordinated care—defined as alignment of patient care across all elements of the healthcare system—have better outcomes and experiences than those who do not receive coordinated care. Quality and quantitative

33 Dylan J. Bilicki, BS and Mathew J. Reeves, PhD. Outpatient Follow-Up Visits to Reduce 30-Day All-Cause Readmissions for Heart Failure, COPD, Myocardial Infarction, and Stroke: A Systematic Review and Meta-Analysis. September 2024. Available here: https://www.cdc.gov/pcd/issues/2024/24_0138.htm

34 Charlene D. Whitaker-Brown, DNP, MSN, FNP-C, Stephanie J. Woods, PhD, RN, Judith B. Cornelius, PhD, MS, RN, Erik Southard, DNP, FNP-BC, and Sanjeev K. Gulati, MD, FACC. Improving quality of life and decreasing readmissions in heart failure patients in a multidisciplinary transition-to-care clinic. 2017. Available here: https://www.heartandlung.org/article/S0147-9563(16)30338-7/abstract

evidence suggests that PCPs with greater access to specialists and those in integrated medical groups have more referrals, better outcomes, and higher patient experience scores.[35,36,37,38,39]

In our sub-analysis of Medicare claims data, we sought to simulate care coordination through patient care patterns. Specifically, we analyzed a cohort of patients who saw both a PCP and a specialist from the same group (Duly) at least two times each in the study year. We compared this subset of patients, whom we considered to be our "Coordinated Duly" cohort, with the original hospital specialty cohorts in an effort to isolate the compounding impact of coordinated care within a non-hospital, multispecialty group on total Medicare expenditures and other cost-reduction metrics. The cohort definitions for this sub-analysis can be found in Table 3.

Table 3. Cohort definitions, FFS Medicare sub-analysis

Cohort description	PCP affiliation	Specialist affiliation	Inclusion criteria
Coordinated Duly	Duly	Duly	Patients who had at least two claims with both a Duly-affiliated PCP and a Duly-affiliated GI physician.
Duly GI	Any	Duly	Patients who had at least two claims with a Duly-affiliated GI physician but saw a PCP not affiliated with Duly.
Hospital GI	Any	Hospital	Patients who had at least two claims with a hospital-affiliated GI physician but saw a PCP not affiliated with a hospital.

The results were consistent: patients who received coordinated care from both a Duly PCP and a Duly specialist incurred fewer Medicare expenditures, IP days, and ED visits than other cohorts assessed, particularly those beneficiaries receiving care from hospital-affiliated physicians. For example, Figure 5 shows that patients who saw hospital-affiliated gastroenterologists incurred approximately double the annual Medicare expenditures compared to their counterparts who saw a Duly PCP and a Duly gastroenterologist. Full results across the six specialties assessed can be found in Appendix B (Table 1 and Figure 1).

35 Zhaowei She, et. al. Primary Care Comprehensiveness and Care Coordination in Robust Specialist Networks Results in Lower Emergency Department Utilization: A Network Analysis of Medicaid Physician Networks. June 2020. Available here: https://pmc.ncbi.nlm.nih.gov/articles/PMC7278335/

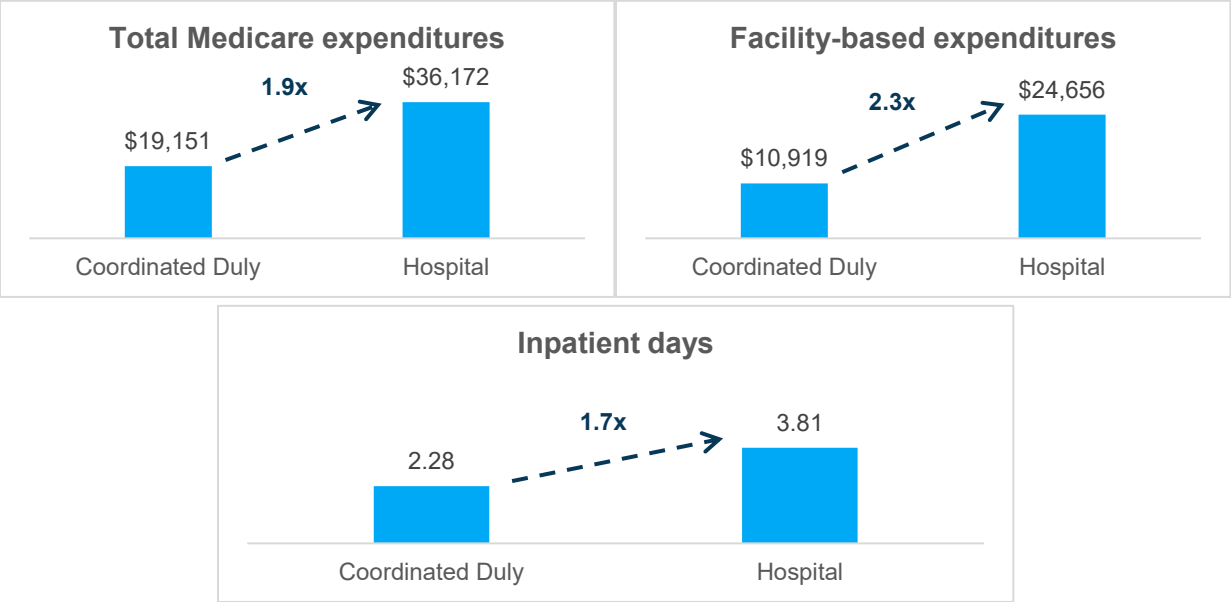
36 David C. Mohr, et. al. Organizational Coordination and Patient Experiences of Specialty Care Integration. May 2019. Available here: https://pubmed.ncbi.nlm.nih.gov/31098971/

37 Bahram Rahman, et. al. Patients report high information coordination between rostered primary care physicians and specialists: A cross-sectional study. August 2024. Available here: https://pubmed.ncbi.nlm.nih.gov/39172961/

38 Hector P Rodriguez. Organizational and market influences on physician performance on patient experience measures. June 2009. Available here: https://pubmed.ncbi.nlm.nih.gov/19674429/

39 Bahram Rahman, et. al. Association between primary care physicians' practice models and referral rates to specialists: A sex-based cross-sectional study. April 2025. Available here: https://pubmed.ncbi.nlm.nih.gov/40294014/

Figure 5. Coordinated Duly vs. hospital GI outcomes, Medicare 2024



This significant differential—over $17,000 in excess cost to Medicare per patient per year—was driven in part by 1.7 times the number of IP days (over 1.5 additional days) and more than double the proportion of expenditures delivered in facility settings (e.g., colonoscopies delivered in the hospital outpatient department [HOPD] as opposed to the less costly ambulatory surgery center [ASC]).

These results highlight the reality that the doctors from whom patients receive care—and the types of medical groups to which those doctors belong—may have a significant impact on the cost burden to both the patient and the healthcare system overall.

As demonstrated below, this dynamic is further exacerbated by the introduction of price negotiation in the commercial market.

Commercial results: services with greatest impact

Site-of-care trends similar to those in Medicare can be observed in the commercial market. However, the added dynamic of price negotiation between payers and providers can have a drastically varied impact based on regional density, brand recognition, and plan type. As a result, we sought to evaluate a subset of services that are: (1) well-known, high-spend categories for employers (e.g., GI and MSK), (2) frequently and safely performed in low-cost settings (e.g., imaging), and/or (3) are critical for the health and wellness of an employed population (e.g., screening mammograms). These services affect individuals of all ages across

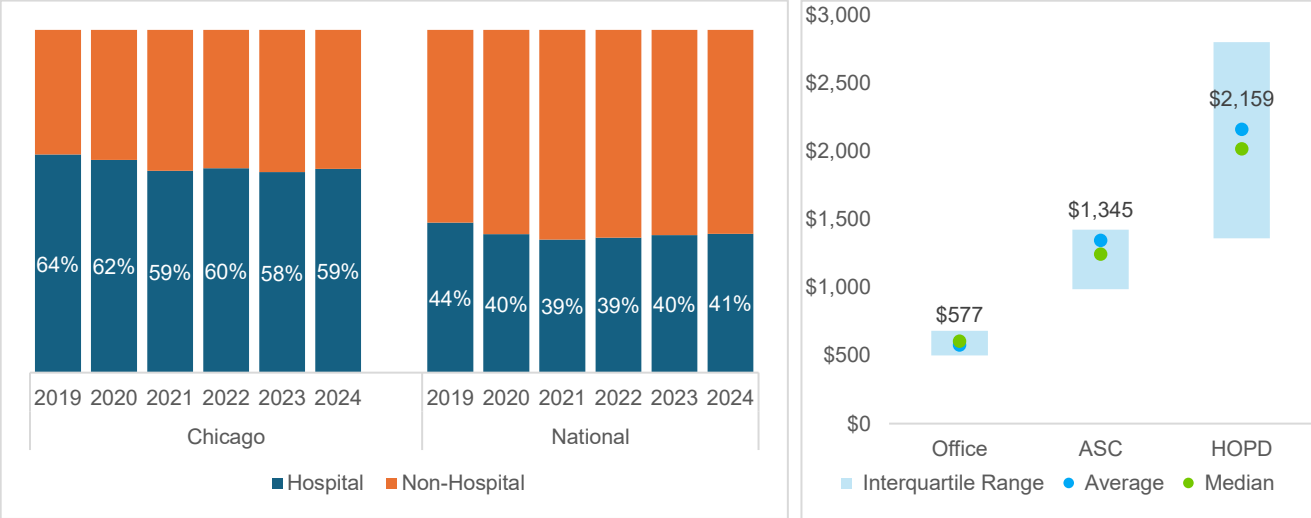
the United States, and their relevance provides an opportunity to evaluate how site-of-care decisions and reimbursement structures impact employer healthcare costs.

Colonoscopies: A common procedure with cost-saving potential

Gastroenterological conditions affect millions of individuals across the country, making them notoriously costly for employers. Preventive care and screenings can have a significant impact on outcomes and the resulting costs. For example, early detection of colon cancer is highly correlated with increased survival rates: the five-year survival rate for stage I and II colorectal cancer is 91%, as opposed to 13% for stage IV.[40]

We assessed how the site-of-care mix for diagnostic colonoscopies in Chicago compares to the national mix—specifically, whether the colonoscopy was performed in a hospital setting. We also performed an analysis of regional claims payment amounts by setting, including two community-based settings (physician office and ASC) and the most common hospital setting, the HOPD.

Figure 6. Diagnostic colonoscopy (45378) hospital vs. non-hospital utilization, Chicago & national, 2024; Chicago commercial 2024 allowed amounts



In 2024, 59% of diagnostic colonoscopies in Chicago were performed in a hospital, compared to 41% nationally. Further, the average cost of a diagnostic colonoscopy in HOPDs was $2,159, compared to $577 in offices and $1,345 in ASCs. In practice, this means that in Chicago, a substantial majority of these procedures occur in the most expensive setting of care, a trend that is also observed for higher-cost, more complex colonoscopies (see Appendix B Figure 3-4).

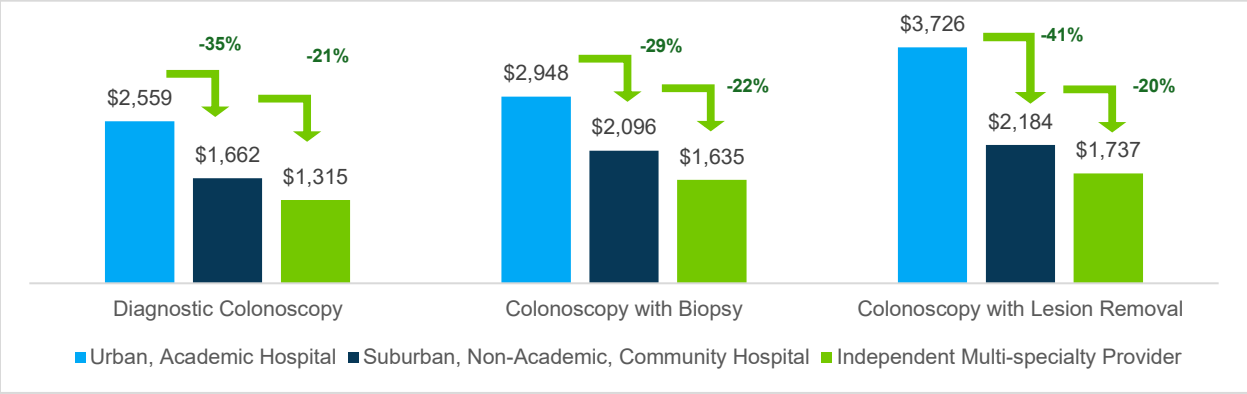
40 Colon Cancer Coalition. Colon Cancer Facts. 2024. Available here: https://coloncancercoalition.org/colon-cancer-screening/facts/

Differences in price by provider entity

To further our understanding of the Chicago provider market, we considered the factors that may drive variation in prices, even within a single setting of care (e.g., HOPD). Our analysis relies on publicly disclosed data, compiled by Turquoise Health, a price transparency company. The views and opinions expressed reflect only the authors' sentiment and do not necessarily reflect the official position of Turquoise Health. The methodology can be found in Appendix A.

We analyzed consolidated payer transparency data for the three colonoscopy procedures of increasing complexity using the Turquoise Health platform, comparing (1) a large, urban, academic hospital in Chicago with a notable reputation and expansive network coverage, (2) a suburban, non-academic, community hospital, and (3) a suburban, non-hospital, multispecialty group. As seen in Figure 7, both hospitals have higher rates than the community-based provider group in comparable settings.

Figure 7. Commercial colonoscopy allowed global amounts, across three Chicago providers, 2024



On average, the rate at the urban hospital is approximately $1,500, or twice as expensive, as that of the private practice (Duly). The community hospital rate is approximately 21% more expensive on average than private practice. In a comparison of the two hospitals—seemingly similar settings of care—the urban, academic hospital, with greater name recognition and greater geographic leverage, is 36% more expensive on average than the community hospital with a smaller footprint.

Total joint replacements: A significant driver of employer healthcare costs

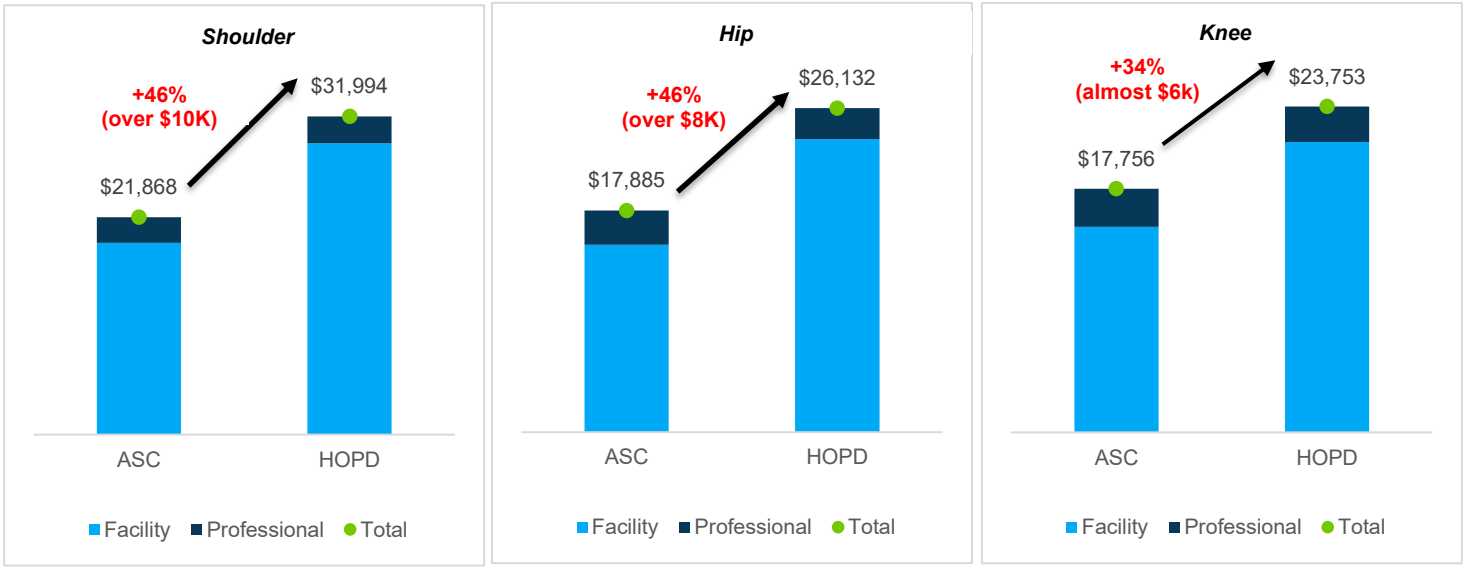
Similar to GI comorbidities, MSK conditions impact millions of individuals in the United States each year. Approximately half of adults in the US experience back pain, neck pain, or arthritis,[41] making orthopedics the most expensive specialty, accounting for $380 billion in annual

41 Evernorth Health Services. 2022. Available here: https://www.evernorth.com/articles/musculoskeletal-disorder-costs-and-cares

healthcare spending.[42] Considering the incidence of MSK conditions and the growing costs associated with MSK care, including its direct association with lost productivity,[43] employers have an increased incentive to find cost savings. However, the cost of MSK procedures performed in Chicago is affected by the predominance of hospitals in the region.

Paid commercial claims data for Chicago show the substantial cost differential of performing total joint replacement procedures in different settings of care. Figure 8 compares the total cost of three different joint replacement procedures, including the facility and professional fees, in the community-based ASC setting and the HOPD.

Figure 8. Allowed amounts for total joint replacement codes, ASC vs. HOPD, Chicago, 2024



A total shoulder replacement in Chicago costs over $10,000 more in a hospital than it does in an ASC, a 46% price difference. A total hip replacement costs over $8,000 more, and a total knee replacement costs nearly $6,000 more in the HOPD compared to the ASC. While not every surgical procedure or every patient is appropriate for the ambulatory setting, our analysis demonstrates that any volume that can be shifted away from the hospital setting yields considerable savings for the ultimate payer in the commercial market: employers.

Imaging services: Impact of site of care on costs

Hospital dominance impacts the cost of not only procedures, but also of imaging services, such as mammograms, CT scans, and MRIs, for which there is often no medical rationale for delivery in a hospital setting. The high cost of these services is particularly troublesome for employers, as imaging plays a key role in early disease detection. Higher costs for imaging services could

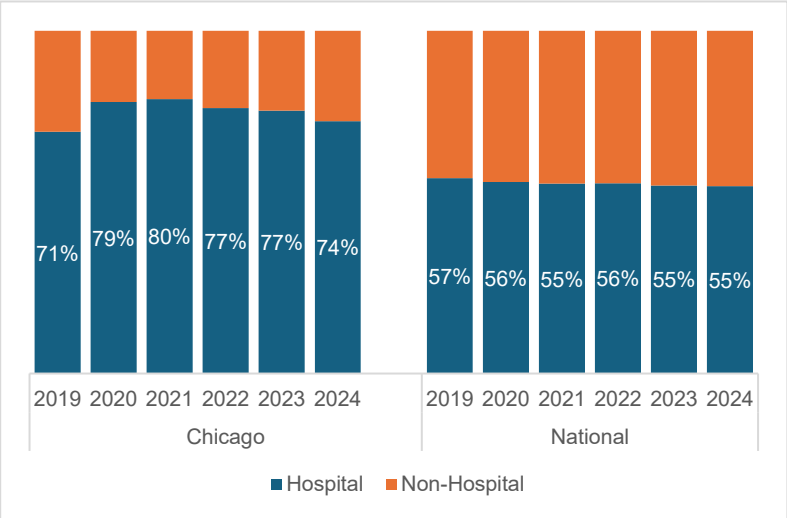
42 Joseph L. Dieleman, PhD; Jackie Cao, MS; Abby Chapin, BA. March 2020. US Health Care Spending by Payer and Health Condition, 1996-2016. US Health Care Spending by Payer and Health Condition, 1996-2016. Available here: https://jamanetwork.com/journals/jama/fullarticle/2762309

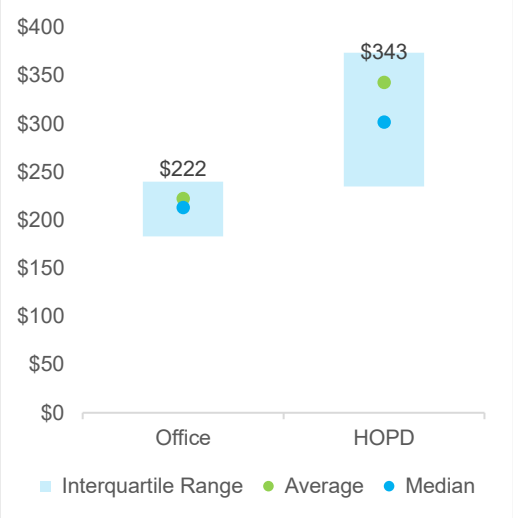
43 Hinge Health. 2024. Available here: https://assets.ctfassets.net/hjcv6wdwxsdz/vGvpNVVT0qdhvUvsxaopf/d46035f35b3b87b4bc87102d6e946d81/2024_State_of_MSK_Care.pdf

lead to reduced utilization, leading to delayed detection of diseases and less favorable outcomes.

A bilateral screening mammogram, used for routine screening and early detection of breast cancer, is significantly more likely to be performed in a hospital setting in Chicago when compared to the rest of the country (Figure 9).

Figure 9. Mammogram (77067) commercial 2024 allowed amounts; hospital vs. non-utilization, Chicago & national, 2024





In Chicago in 2024, nearly three fourths of these mammograms were performed in hospitals, compared to the national average of slightly over 50%. An analysis of paid claims data shows that this service is about 50% more expensive in the HOPD ($343 vs. $222). Furthermore, the spread of rates in the HOPD is much wider than in the office for this code. The 75th percentile for 77067 is $374 in the HOPD, compared to $240 in the office setting.

These trends are even more pronounced for the complete breast scan (ultrasound), used in clinical scenarios where mammograms may be inefficient, such as for patients with dense breasts or those in post-treatment surveillance.

A complete breast ultrasound in Chicago is twice as likely to be conducted in a hospital setting compared to the national average (72% vs. 36%). While the average cost of receiving this imaging service in the office is $120, it costs over $300 in the hospital—nearly three times as much for commercially insured patients in Chicago.

Comparable results are observed for other services (e.g., CT scan of abdomen, complete breast ultrasound) and can be found in Appendix B (Figures 5-6).

Conclusion

Despite the large number of unique health systems in the region, numerous mergers and acquisitions in the Chicago market have altered its provider landscape, resulting in a greater proportion of care occurring in hospital settings in both the Medicare and commercial markets. Hospital dominance in the region—and minimal downward pressure on cost growth demonstrated by payers—has consequences for all stakeholders in the system. Patients are increasingly guided toward more costly hospital settings, with little evidence that the associated increases in cost correspond with improved patient care or satisfaction. Employers, who must maintain a competitive benefits package for retention and recruitment, face unsustainable health benefit cost growth, which they may pass through to employees, a greater share of whose income may go toward premiums and out-of-pocket healthcare expenses as a result.

Community-based care provides a viable alternative to hospital dominance. Private practice groups, such as Duly, offer a lower-cost alternative to hospital care while achieving better performance on quality metrics and improved patient outcomes. In the midst of an ever-evolving healthcare environment, payers and policymakers should consider the tools at their disposal, including those described below, to control costs and assure a high-quality experience for their beneficiaries.

For payers and employers

As provider consolidation has altered Chicago market dynamics, payers and employers alike have less negotiating power due to the preponderance of care occurring in hospital settings, which is consistently more expensive than other settings of care.

In the face of persistent increases in the total cost of healthcare, payers and employers must develop innovative provider-level partnerships to ensure high-quality outcomes, guarantee fair and sustainable costs, and de-risk market-level dynamics beyond their control.

For policymakers

The rising cost of healthcare in Chicago is a critical issue for city and state policymakers due to its far-reaching implications for public well-being and economic stability.

To guarantee the economic prosperity of Chicago's employers and the healthcare of its residents, policymakers must seek initiatives to level the playing field for less costly healthcare providers, such as (1) regulating price transparency files to clarify the currently obscure pricing data; (2) creating programs that incentivize employers to contract directly with independent provider groups, which have less leverage than dominant hospital systems in the region; and (3) further studying the merits of site-neutral payments, which could reduce financial incentives for high-cost settings and lower total costs for payers and beneficiaries.

Appendix A—Methodology

This analysis seeks to examine the cost and quality of selected healthcare services in the Chicago market when rendered by different types of physicians. For the purposes of this analysis, the Chicago market is defined as encompassing Cook, DuPage, Kane, Kendall, and Will Counties. The study investigates a set of cost and quality metrics at the specialty level across the following specialties: cardiology, gastroenterology, medical oncology, orthopedics, primary care, and urology. These specialties were assessed due to their alignment with previously published literature, which identified these six specialties primarily due to (1) the ability to observe meaningful utilization in the Medicare population and (2) the ability to assess site-of-care dynamics for high-cost, high-volume services (i.e., surgical and imaging-intensive specialties). Primary care was added as a specialty due to its importance to multispecialty practice. The study addresses both Medicare beneficiaries and commercially insured populations.

Medicare analysis

The primary Medicare analysis shows how Duly Health and Care compares to hospital-affiliated physicians, and the Medicare sub-analysis shows the incremental impact of receiving coordinated care—both primary and specialty care, as opposed to just specialty care—from Duly.

Physician assignment

To assess the impact of receiving care from different kinds of physicians in the Chicago market, Avalere Health created physician cohorts based on employment type. Physician assignment had two goals: 1) to disaggregate the impact of hospital dominance in Chicago, and 2) to evaluate the comparative cost and quality of Duly physicians versus hospital-affiliated providers in the Chicago market.

To that end, Avalere Health created two cohorts for comparison: Duly physicians and hospital-affiliated physicians. Physicians were assigned to cohorts using the IQVIA OneKey data set, whose native categories are independent, corporate-owned practice, and integrated health system-owned practice. In this analysis, IQVIA's integrated health system-owned practice category represents hospital-affiliated physicians. Avalere Health used Duly's complete list of National Provider Identifiers to manually segment Duly's affiliated physicians into a separate cohort. Advanced practice providers (e.g., physician assistants, nurse practitioners, etc.) were excluded. Other physicians in the Chicago market (i.e., those in the independent and corporate categories) are not represented in this study.

Note: While this analysis was limited to a subset of providers in the Chicago market, the comparison between hospital-affiliated physicians and a scaled community-based alternative can be applied to other markets.

Beneficiary attribution

To evaluate cost and quality metrics across these cohorts, Avalere Health used the 100% Medicare FFS data to attribute Medicare beneficiaries to a cohort. For each specialty studied, each beneficiary was attributed to the one cohort with which they incurred the greatest number of claims in 2023. A minimum of two claims in that specialty were required for assignment. In cases of ties between cohorts, beneficiaries were assigned randomly to a cohort. To be included, beneficiaries must have been enrolled in Medicare Part A and Part B throughout the time period of the analysis, or through the month of their mortality date (if applicable).

Cost and quality outcomes

Avalere Health conducted a comparative analysis of selected cost and quality metrics across cohorts, using the most recent full year of data available for each metric. For cost, the period was January 1, 2023, through December 31, 2023, and for quality, this period was October 1, 2023, through September 30, 2024.

- **Cost:** Total risk-adjusted per beneficiary per year spending
- **Quality:** Inpatient days
- **Quality:** Emergency department visits per 1000 patients
- **Quality:** Rate of all-cause readmissions within 30 days
- **Quality:** Follow-up visits with 14 days of discharge per 1000 patients

For each outcome metric, Avalere Health ran a multivariate regression model for each specialty, allowing an estimation of the association between physician cohort and Medicare expenditures and utilization. These models controlled for the following independent variables:

- **Demographics:** Age, sex, and race
- **Medicare status:** Dual eligibility (Medicare and Medicaid), original reason for Medicare entitlement, and end-state regal disease status
- **Health status:** Centers for Medicare and Medicaid Servies Hierarchical Condition Categories risk score and death in year
- **Social determinants of health:** Median ZIP code-level household income
- **Market characteristics:** Rural/urban location and census region

Coordinated care analysis

In addition to the main Medicare analysis, Avalere Health conducted an incremental analysis to assess the impact of receiving both primary care and specialty care from Duly. Avalere Health cross-referenced the beneficiaries attributed to Duly for primary care with those attributed to Duly for other specialties to identify those attributed to Duly in both categories. Separately for each specialty, Avalere Health reran the multivariate analysis for all outcomes metrics as described above, with coordinated Duly care (primary care and specialty care) as the treatment group and Duly specialty care only as the comparison group.

Commercial analysis

Unlike the 100% Medicare FFS claims data, adjudicated (paid) commercial claims data sets do not provide comprehensive information about total cost of care or quality outcomes at the beneficiary level. Therefore, Avalere Health designed a complementary commercial analysis to characterize the pricing landscape in the Chicago market for a set of key services across Duly's top specialties. The analysis leverages a nationally representative source of paid commercial claims data (2019-2024) to establish Chicago market rates, as well as Turquoise Health payer transparency data (March 2025) to verify rate benchmarks for Duly and other Chicago providers.

Code selection

100% Medicare FFS data and internal Duly revenue and volume data were used to select the Current Procedural Terminology codes evaluated in the analysis. For each specialty, Avalere Health cross-referenced the Medicare, commercial, and Duly data sets to identify codes that made a material contribution to total payment and/or total volume in all three populations. Then, eligibility was restricted to codes able to be performed across multiple outpatient sites of care. To enable direct comparison of unit price, the inpatient setting was excluded. Across specialties, the final code list includes a broad representation of evaluation and management, surgical, specialty non-surgical, and imaging services.

Code benchmarking

Once the code list was finalized, Avalere Health procured and cleaned two commercial data sets to enable benchmarking: paid commercial claims data from a nationally representative source and payer transparency data from Turquoise Health.

To characterize historical reimbursement trends, Avalere Health used the commercial claims data to create a benchmark showing the interquartile range, average allowed amount, and median allowed amount for each code. Imaging rates were found using the combination of the professional fee with the Global modifier and the corresponding facility fee, when applicable.

To characterize the current reimbursement landscape, Avalere Health identified Duly's average reimbursement rates (March 2025) within the Turquoise Health database and compared them to rates from two other hospitals: a large, urban, academic hospital and a smaller community hospital. The rates used for comparison were those paid by Blue Cross and Blue Shield of Illinois, the most dominant payer in the state and the region. To ensure the most accurate comparisons, rates associated with health maintenance organization plans and/or non-applicable physician specialties were excluded.

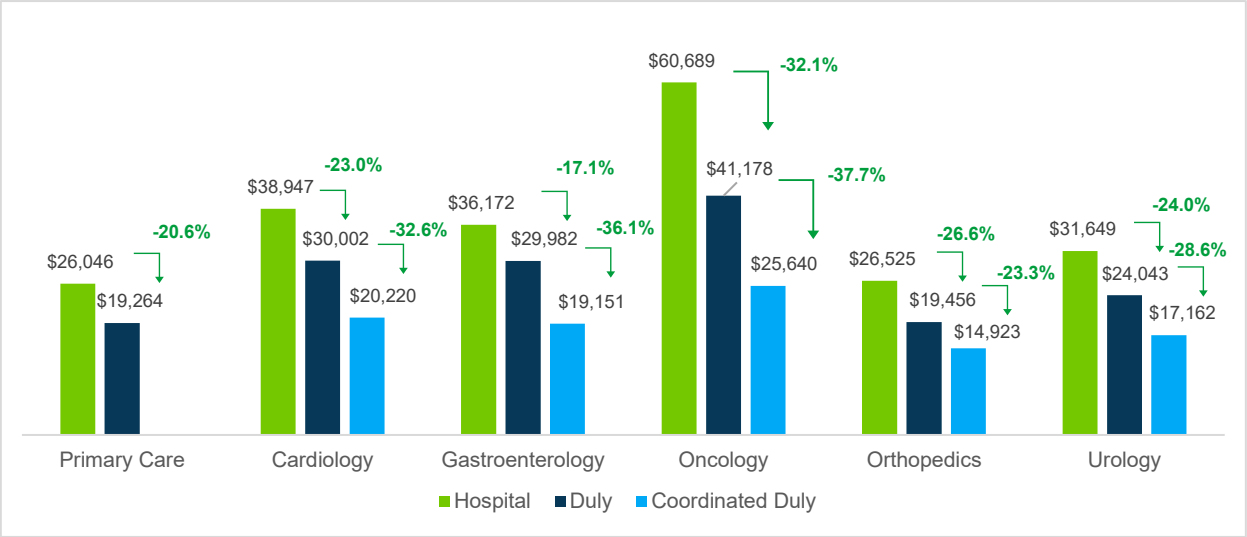
For each code, the nationally representative commercial claims data set includes the 25th percentile, 50th percentile, 75th percentile, 90th percentile, and average allowed amounts, as well as utilization per 1,000 commercial lives in the Chicago area (defined as Cook, DuPage, Kane, Kendall, and Will Counties) from 2019 through 2024. The Turquoise data set includes the average price paid, by code, across all Blue Cross Blue Shield of Illinois plans, in March 2025.

Appendix B—Supplemental results

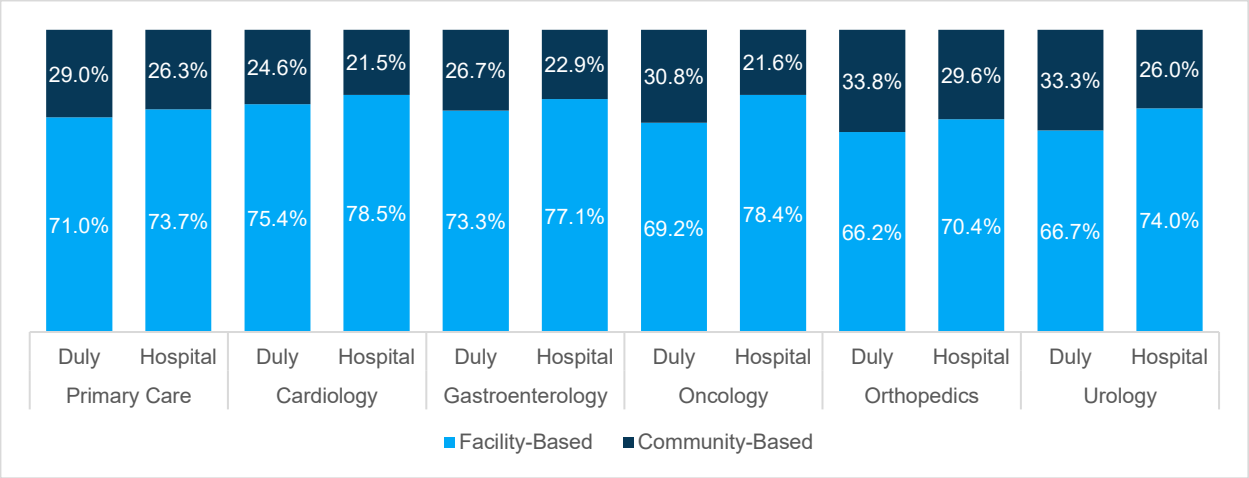
Appendix Table 1. Cost-saving outcomes measures, by specialty, coordinated Duly vs. hospital, October 1, 2023—September 30, 2024

Specialty	Hospital	Coordinated Duly	Unit and percentage difference, coordinated Duly vs. hospital
IP days per patient			
Cardiology	4.23	2.70	-1.53 (-36.2%)
Gastroenterology	3.81	2.28	-1.53 (-40.2%)
Oncology	4.90	2.84	-2.06 (42.0%)
Orthopedics	2.20	1.53	-0.67 (-30.5%)
Urology	3.00	2.10	-0.90 (-30.0%)
ED visits per 1000 patients			
Cardiology	628	435	-193 (-30.7%)
Gastroenterology	545	417	-128 (-23.5%)
Oncology	496	432	-64 (-12.9%)
Orthopedics	461	364	-97 (-21.0%)
Urology	500	407	-93 (-18.6%)
Rate of readmission within 30 days of a discharge			
Cardiology	23.0%	18.4%	-4.6% (-20.0%)
Gastroenterology	25.4%	18.6%	-6.8% (-26.8%)
Oncology	27.5%	20.5%	-7.0% (-25.5%)
Orthopedics	17.7%	15.8%	-1.9% (-10.7%)
Urology	22.0%	18.2%	-3.8% (-17.3%)
Follow-up visits within 14 days of a discharge per 1000 patients			
Cardiology	378	424	+46 (+12.2%)
Gastroenterology	356	357	+1 (+0.3%)
Oncology	523	454	-69 (-13.2%)
Orthopedics	233	237	+4 (+1.7%)
Urology	326	392	+66 (+20.2%)

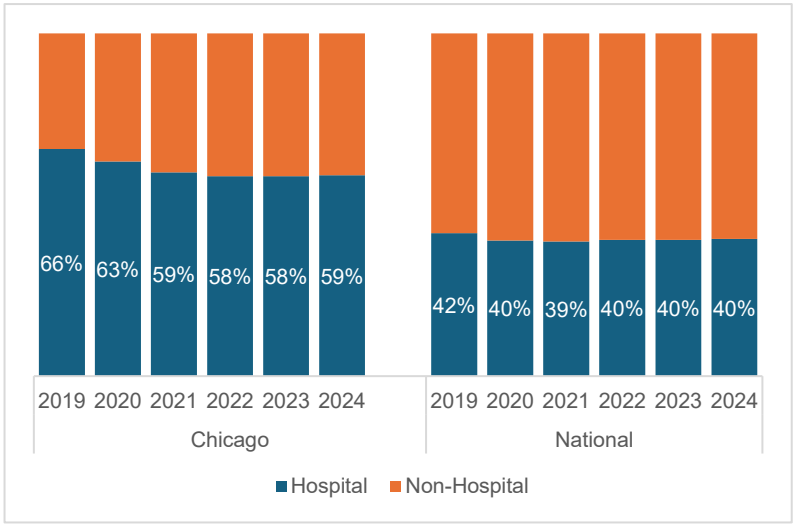
Appendix Figure 1. Total Medicare expenditures, hospital vs. Duly vs. coordinated Duly, 2023

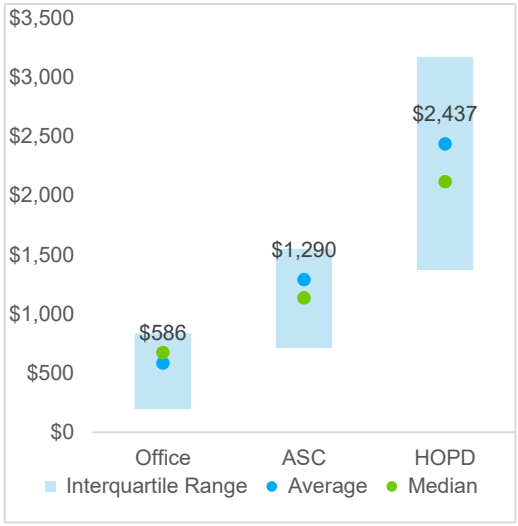


Appendix Figure 2. Proportion of facility-based vs. community-based care, Duly vs. hospital, 2023

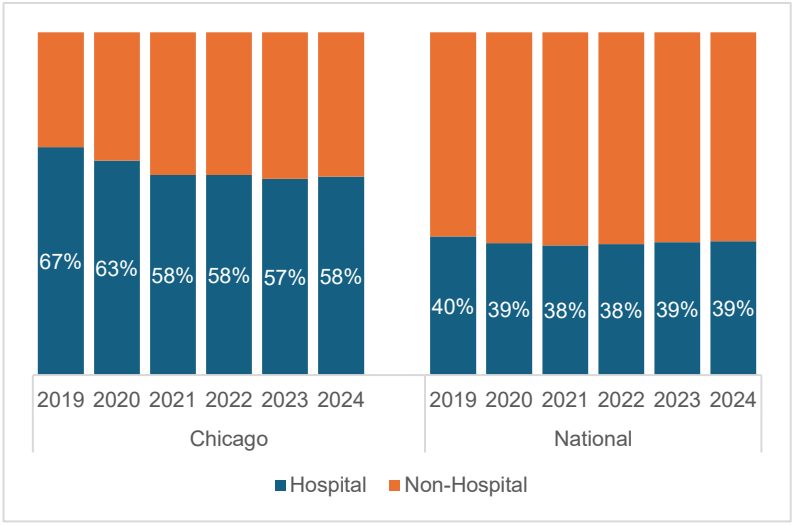


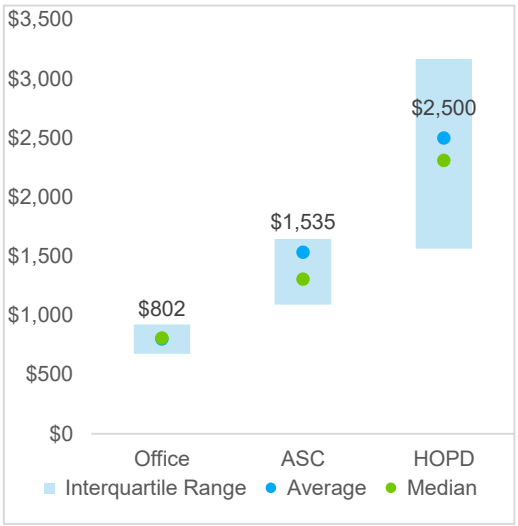
Appendix Figure 3: Colonoscopy with biopsy (45380) hospital vs. non-hospital Utilization, Chicago and national, 2024; Chicago commercial 2024 allowed amounts



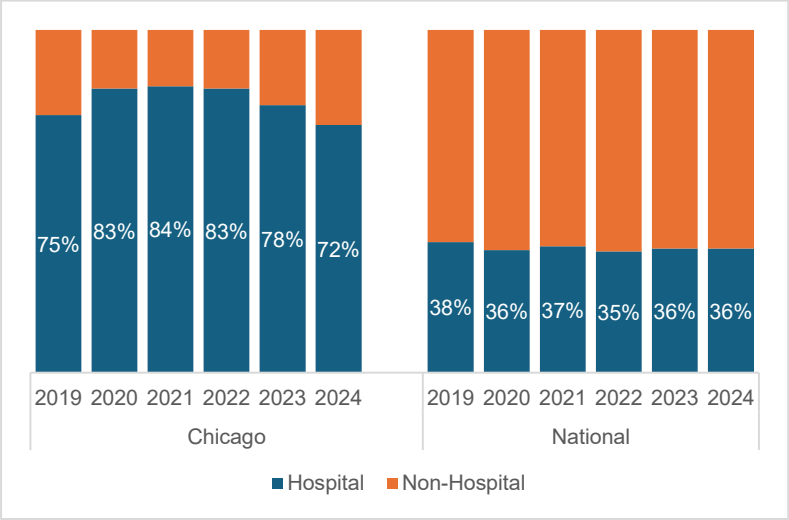


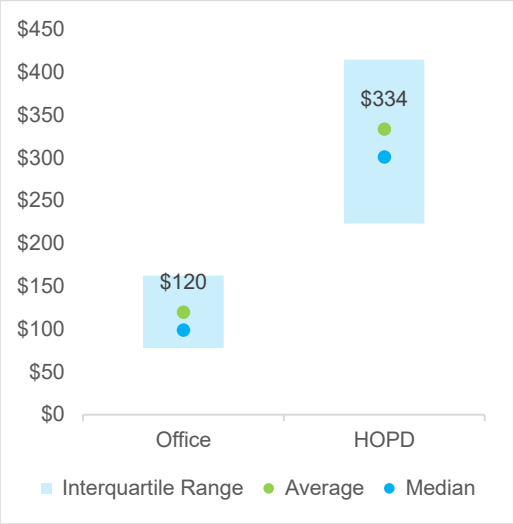
Appendix Figure 4: Colonoscopy with lesion removal (45385) hospital vs. non-hospital utilization, Chicago and national, 2024; Chicago commercial 2024 allowed amounts





Appendix Figure 5: Complete breast ultrasound (76641) hospital vs. non-hospital utilization, Chicago and national, 2024; Chicago commercial 2024 allowed amounts





Appendix Figure 6: CT scan of the abdomen and pelvis, with contrast (74177) hospital vs. non-hospital utilization, Chicago and national, 2024; Chicago commercial 2024 allowed amounts