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ISSUE BRIEF

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Effects of vertical integration on providers' billing and practice patterns in Medicare (2018-2022)

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Background

This brief is part of an ongoing series examining how vertical integration is changing provider behavior. In our earlier brief on the Employer-Sponsored Insurance (ESI) population, we found that physician acquisition by health systems was associated with higher-intensity billing for established-patient Evaluation and Management (E&M) visits and a greater likelihood that follow-up diagnostic testing and imaging occurred in more expensive facility settings rather than lower-cost non-facility settings (Chang et al., 2026). In this brief, we extend our previous analysis by using the same panel of physicians acquired by health systems between 2019 and 2021 to examine shifts in coding intensity and site of service for established patients in Medicare Fee-For-Service (FFS).

When payment rates differ across ambulatory settings for clinically similar services, providers and health systems have stronger financial incentives to integrate and shift billing and care toward more expensive facility settings. The Medicare Payment Advisory Commission (MedPAC) has repeatedly stated that these financial incentives can encourage consolidation of physician practices with health systems, increase total Medicare spending, and raise beneficiary spending without meaningful improvements in patient outcomes (MedPAC, 2022; MedPAC, 2023; MedPAC, 2024). Medicare FFS offers a unique opportunity to examine these dynamics because providers are generally paid for each service delivered with fewer utilization management controls. Unlike ESI and Medicare Advantage plans, which more frequently rely on tools such as prior authorization and utilization review to limit service use and care delivery at expensive sites of care, Medicare FFS more directly reflects the financial incentives embedded in fee-for-service reimbursement.

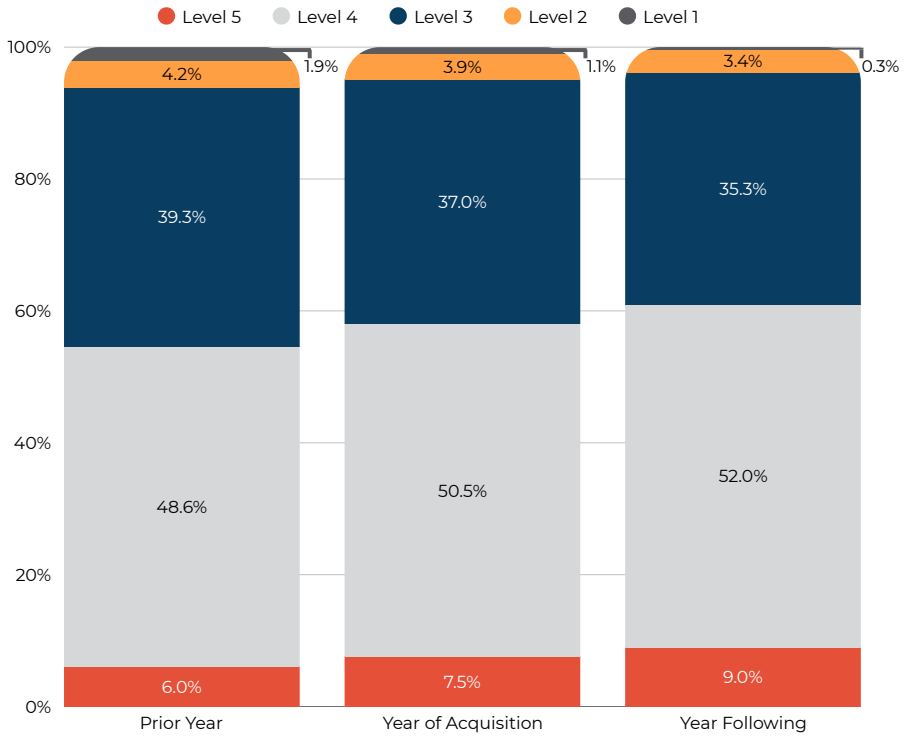
In this report, we found evidence of higher billing intensity for established-patient E&M visits after acquisition, alongside a shift in follow-up laboratory and imaging services away from lower-cost non-facility settings and toward facility-based settings in the Medicare FFS population. These patterns are directionally consistent with the earlier ESI findings, but the changes observed in Medicare FFS are even more pronounced in several instances. The findings add further support to the view that vertical integration changes not only ownership of physician practices, but where care is delivered, and how it is billed.

Physicians are more likely to bill with higher intensity E&M codes following acquisition

E&M codes 99211 (Level 1) to 99215 (Level 5) are used to bill office or outpatient visits for established patients and reflect increasing levels of clinical intensity, complexity in medical decision-making, physician work, and time. Level 1 represents the lowest intensity encounter (typically 5 minutes) for brief services that may not require direct physician involvement (e.g., blood pressure checks). Level 5 represents the highest intensity encounter (40 to 54 minutes), for very complex or high-risk cases involving extensive medical decision-making. Higher intensity E&M codes receive higher reimbursement rates, reflecting the greater complexity, physician effort, and time associated with these encounters.

In the year prior to acquisition, a little over half (54.6%) of claims billed by acquired providers for delivering these E&M services to established Medicare FFS beneficiary patients were coded as moderately or highly complex (Level 4 or Level 5) **(Figure 1)**. This share increased both during the acquisition year and in the year following acquisition. From pre- to post-acquisition, billing to the moderate intensity E&M code (Level 4) rose from 48.6% to 52.0%. Physician billing to the highest intensity E&M code (Level 5) rose from 6.0% to 9.0%. Overall, billing to Level 4 or Level 5 among acquired providers increased by more than 6 percentage points, from 54.6% before acquisition to 61.0% after acquisition.

Figure 1: Share of claims for established E&M codes, by level of intensity, among providers acquired by health system



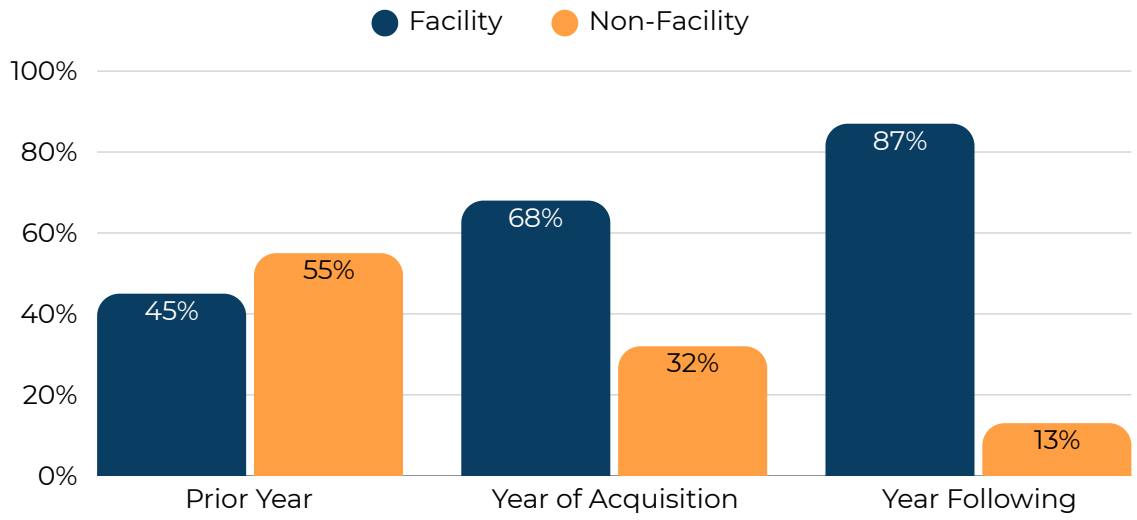
Source: Authors' analyses of Medicare FFS data

Shift in site of service suggests physicians are more likely to steer patients to hospital-owned outpatient services following acquisition

Laboratory testing is among the most common and frequently billed set of services in ambulatory care and plays a central role in screening, diagnosis, and chronic disease management. Commonly ordered tests include routine blood tests, urinalysis, basic and comprehensive metabolic panels, lipid panels, and hemoglobin A1c tests. These laboratory tests can be performed by independent laboratories and hospital-owned laboratories using the same testing instruments and clinical standards. However, hospital-owned laboratories often receive substantially higher reimbursement for identical tests. Services rendered at facilities such as hospital outpatient departments are reimbursed at amounts (under Medicare's Outpatient Prospective Payment System) that are higher than non-facilities (under Medicare's Physician Fee Schedule).

Prior to acquisition, most follow-up laboratory tests for established patients of acquired physician practices were rendered in lower-cost, non-facility settings such as independent laboratories (55%) **(Figure 2)**. This share declined sharply during the acquisition year and continued to decrease in the year following acquisition. One year after acquisition, only 13% of follow-up laboratory tests were performed in non-facility settings, representing a more than four-fold decline from pre-acquisition levels.

Figure 2: Share of follow-up laboratory tests by site of service

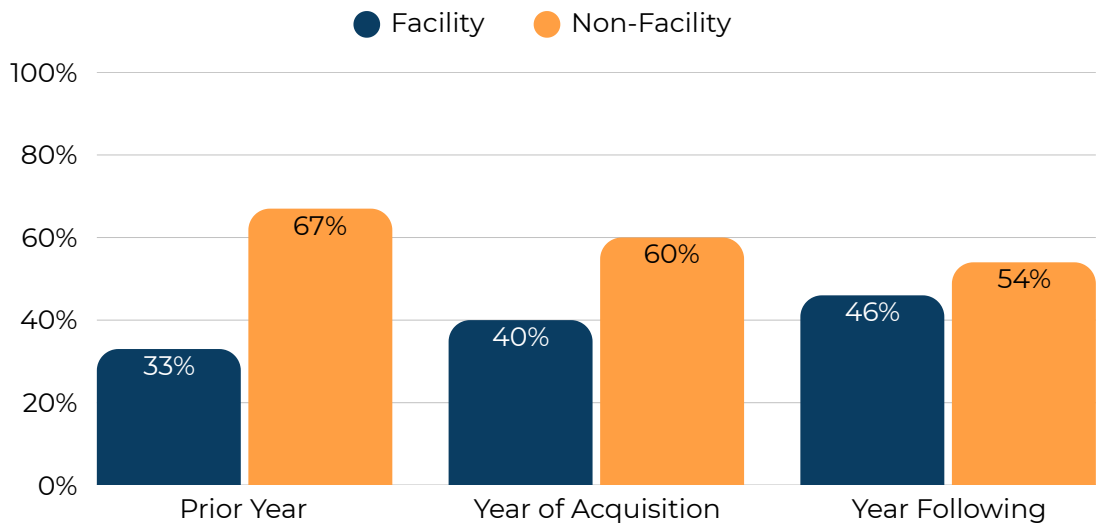


Source: Authors' analyses of Medicare FFS data

Imaging services represent another common type of ambulatory services used to evaluate injuries, diagnose disease, and monitor change in patient condition. Common imaging procedures include X-rays, ultrasounds, CT scans, and MRIs. Many imaging services can be performed safely and effectively in non-facility settings, and at a lower cost than hospital-owned imaging centers. Previous HCCI research also found substantial price differences for imaging services by site of service, with prices at hospital outpatient departments ranging from two to four times higher than at physician offices.

Like laboratory testing, follow-up imaging services for established patients of acquired providers shifted from less expensive non-facility settings toward more expensive facility settings following acquisition **(Figure 3)**. However, this shift was less prominent than observed for laboratory tests. Prior to acquisition, non-facility settings accounted for about two-thirds (67%) of all imaging services. This share fell to 60% during the year of acquisition. In the year following acquisition, about half (54%) of all imaging services were rendered at less expensive non-facilities, a decline of 13 percentage points from pre-acquisition levels.

Figure 3: Share of follow-up imaging services by site of service



Source: Authors' analyses of Medicare FFS data

Conclusion

Consistent with the companion ESI brief, we observe meaningful changes in billing and practice patterns for established Medicare FFS beneficiaries following physicians' acquisition by health systems. Established patients under the care of acquired physicians were more likely to be billed using higher-intensity E&M codes and were more likely to receive follow-up laboratory and imaging services in more expensive facility settings after acquisition. The Medicare FFS results reinforce that vertical integration can reshape care delivery in ways that are financially consequential even when the underlying clinical service is unchanged and could have been furnished in a lower-cost setting.

Medicare payment rates and beneficiary cost sharing for identical outpatient services can differ significantly based on site of service. Medicare generally pays more, and beneficiaries often owe more in cost sharing, when clinically similar services are billed in facility rather than non-facility settings (Cooper et al., 2023). Site-neutral payment policies would reduce financial incentives associated with vertical integration without impacting quality of care by requiring Medicare to pay the same rate for equivalent services delivered in facility and non-facility settings. CMS began implementing site neutral payments through regulation in 2021, when it required E&M services to be paid in a site neutral manner. In 2026, CMS added IV drug infusion services and in the 2027 Medicare Outpatient Prospective Payment System (OPPS) Proposed Rule are proposing to add some imaging and lab services to the list of site neutral services (OPPS 2027). Over a ten-year period, a broader site neutral policy could reduce Medicare spending by an estimated $153 billion and reduce premiums and cost-sharing for Medicare beneficiaries by an estimated $94 billion (CRFB, 2021). Although such reforms would reduce revenue for some health systems, a growing body of evidence from states that have enacted facility fee reforms suggests that site-neutral policies may improve affordability without jeopardizing hospital fiscal health (Monahan et al., 2026).

The findings from this brief also suggest that physician-practice acquisitions merit closer scrutiny from policymakers and regulators. More transparent monitoring of post-acquisition billing patterns and stronger oversight of physician-practice transactions would be consistent with the evidence presented here. This may be especially important in highly concentrated hospital markets where hospital negotiating power is already high and competition is low. A recent study from HCCI found that inpatient hospital prices were highest in metropolitan areas where hospital markets were very highly concentrated and insurance markets were moderately concentrated. In these markets, inpatient hospital prices were, on average, about 25% higher than the national median in 2022.

Methods

This report is accompanied by a few limitations, chiefly the absence of a control group, which limits our ability to make causal inference from our findings. Additionally, the study period coincides with the COVID-19 pandemic which can limit generalizability due to decrease in health care use during that time period, but previous HCCI research has found the decrease in health care use associated with the pandemic disproportionately was confined to a few months in 2020. Lastly, we do not directly link orders, referrals, or follow-up utilization of imaging and laboratory tests by patients to acquired providers. This may lend to conservative estimates for patient steering.

In this report, we identified claims associated with providers whose practices were acquired by health systems between 2019 and 2021 using Medicare fee-for-service claims data. We identified providers that were acquired by health systems by leveraging changes in billing identifiers associated with the individual providers following methods by Neprash et al. (2015). We restricted our analysis to adjudicated outpatient facility and professional claims with a health plan as the primary payer between 2018 and 2022 among enrollees. We identified sites of care as facilities or non-facilities by the claim form submitted for reimbursements. Services rendered in facilities were billed using the UB-04 claim form, while services rendered in non-facilities were billed using the CMS-1500 claim form.

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