EXPLORATORY ANALYSIS OF COMMERCIAL PRICES RELATIVE TO MEDICARE FOR HOSPITAL OUTPATIENT SERVICES: IMPLICATIONS FOR ECONOMIC THEORY, PRICE MEASUREMENT, AND COST-CONTROL POLICIES

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INTRODUCTION

Policymakers are increasingly using Medicare reimbursement rates to evaluate commercial price levels, to assess provider price variation, and inform and implement policies such as reference pricing. These efforts typically use a ratio of commercial prices to Medicare payments for the same services (e.g. "250% of Medicare").

These ratios are usually constructed at high levels of aggregation (e.g., all hospital outpatient services or all services) for ease of comparison and implementation. However, there may be systematic differences in these ratios across types of services that could lead to differences in aggregate ratios when comparing payers or providers based on service mix.

Understanding how payment ratios differ by services could provide opportunities to further refine such policies by service line or provider type and offer further insight into Medicare and commercial pricing.

OBJECTIVES

This study seeks to examine commercial-to-Medicare price ratios across service lines using hospital outpatient care, an example that is policy-relevant and which has a broad array of heterogeneous types of services.

STUDY DESIGN

Using 2024 facility claims from the Center for Health Information and Analysis (CHIA) Massachusetts All-Payer Claims Database (APCD), the Health Policy Commission (HPC) estimated commercial payments for hospital outpatient services and corresponding Medicare payments using the Milliman Medicare Repricer Software. The dataset included facility claims from the five largest private commercial payers and outpatient hospital medical services for adults 18 to 64 years of age in Massachusetts.

Commercial and Medicare payments were aggregated at the claim level to ensure comparability when comprehensive Ambulatory Payment Classifications (APCs) or other bundled payments covered multiple claim lines. Each claim was categorized by service line based on its highest-cost procedure (e.g., surgery, lab, imaging) and classified into cost tiers using the median Medicare payment for the claims with that primary procedure.

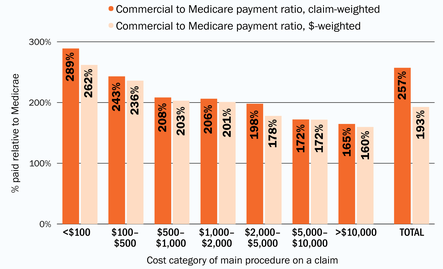
To understand how service mix can impact aggregate commercial-to-Medicare price ratios, shares of service lines and cost categories were calculated using Medicare payments as a measure of volume.

RESULTS

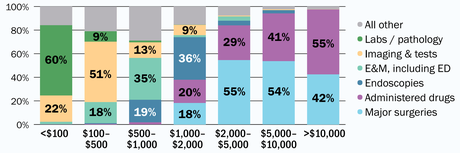
Figure 1: Commercial Payment Relative to Medicare by Medicare Price Category

- Commercial payment relative to Medicare is higher for inexpensive services and lower for high-cost services (using Medicare payment as a proxy for cost).
- Lower-cost services are typically paid by commercial insurers at 250% of Medicare rates or higher, while high-cost services (>$2,000 Medicare price) are typically paid below 200% of Medicare. The latter comprise nearly half of all commercial outpatient spending.
- Claim-weighted average commercial payment ratios tend to exceed dollar-weighted averages, 257% claim-weighted vs. 197% dollar-weighted, as the ratios are higher for lower-cost services that are more numerous.

FIGURE 1: Commercial to Medicare payment ratios by cost category of hospital outpatient services, dollar-weighted and claim-weighted, 2024



Distribution of service types within each Medicare payment category



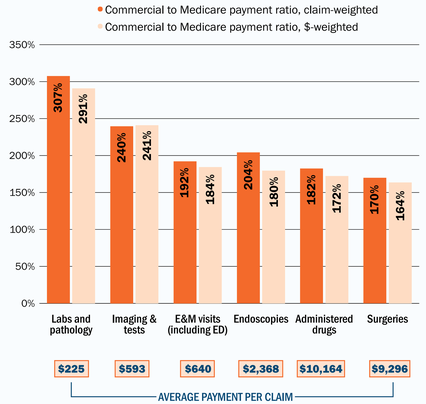
Source: HPC analysis of Massachusetts All-Payer Claims Database, 2024 and estimated Medicare payment using ***Milliman repricing software.***

Notes: Exhibits are based on facility claims in all Massachusetts acute hospitals for five large commercial payers in 2024. Estimated Medicare outpatient facility payment for the same claim line should be the same across Massachusetts hospitals, however, modifiers, outlier status and a combination of claim lines in a claim might result in some differences in total Medicare payment per claim. Therefore, services are categorized into cost tiers using median Medicare payment on all claims with the same primary procedure such that all claims with the same CPT codes would receive the same cost category assignment.

Figure 2: Payment Relative to Medicare by Selected Service Categories

- Higher-cost services such as surgeries, administered drugs, endoscopies and E&M visits are typically paid below 200% of Medicare, while most labs and imaging claims are paid above that threshold.
- Within service categories, as in Figure 1, there continues to be higher commercial price ratios for services with lower Medicare prices, even controlling for hospital and payer fixed effects in a regression.
- Emergency Department E&M visits illustrate this pattern: relative commercial payment drops from 184% of Medicare for Level 2 visits to 116% for Level 5 visits.

FIGURE 2: Commercial to Medicare payment ratios by outpatient service type, dollar-weighted and claim-weighted, 2024



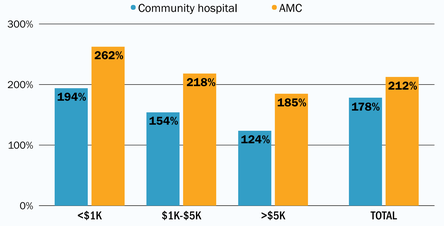
Source: HPC analysis of Massachusetts All-Payer Claims Database, 2024 and estimated Medicare payment using ***Milliman repricing software.***

Notes: Surgeries are defined as having surgery flag 1 or 2 in as identified in the HCUP (healthcare cost utilization project) surgery flags software and having Medicare payment of $1,000 or higher with the exception of endoscopies, which were placed in a separate service category. Other services are categorized using a combination of CCS (clinical classification software) procedure categories and BETOS (Berenson-Eggers Type of Service) procedure categories software.

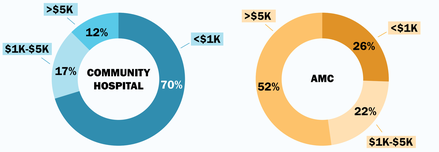
Figure 3: Commercial-to-Medicare Prices in a Large Academic Medical Center (AMC) vs. Community Hospital, by Service Line and Aggregate

- Because lower-cost services tend to have higher commercial-to-Medicare price ratios, a hospital providing mostly lower-cost services will have a higher price ratio.
- The share of expensive services (>$5,000 Medicare price) that comprise a hospital's service mix (by revenue) varies across hospitals: from 12% in a large community hospital to 52% at a large academic medical center (AMC).
- A typical academic medical center has substantially higher commercial prices, relative to Medicare, than a typical community hospital in all service categories (35% to 49%). However, the AMC's commercial aggregate price relative to Medicare is just 19% higher than in the community hospital due to a higher share of high-cost services in AMCs (which have lower price ratios to Medicare).

FIGURE 3: Commercial-to-Medicare payment ratios in a large Academic Medical Center (AMC) vs. a Community Hospital, by cost category of services and aggregate, 2024



Dollar-weighted mix of services by Medicare cost category for a large AMC and a community hospital



Source: HPC analysis of Massachusetts All-Payer Claims Database, 2024 and estimated Medicare payment using ***Milliman repricing software.***

Notes: Medicare to commercial ratios are dollar-weighted. Hospital selection: HPC ranked hospitals according to their proportion of high-cost services (those with Medicare payment above $5K) and selected the largest hospital from among the five with the highest proportion (an AMC) and the largest one among the five with the lowest proportion (a community hospital) to display in the figure.

DISCUSSION

Researchers making state or hospital comparisons of commercial-to-Medicare prices may consider adjusting for service line differences, as there is substantial heterogeneity in relative prices by service, with lower-cost services tending to have higher commercial price ratios. It is unclear why this pattern exists, and understanding it could be a worthy topic of future research.

IMPLICATIONS

Using an aggregate approach, hospitals that provide more lower-cost services appear to have higher aggregate commercial-to-Medicare ratios than hospitals that provide more higher-cost services. Because of this, a comparison of hospitals by their overall commercial price ratios may make community hospitals and tertiary care hospitals appear more similar in price than they truly are.

Policies that set a fixed commercial-to-Medicare price benchmark for individual services may lead to larger price reductions for lower-cost service categories (e.g. labs) than higher-cost categories such as surgeries.

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