LOWER HEALTH CARE SPENDING AND SIMILAR QUALITY AT PHYSICIAN-LED PROVIDER GROUPS VS ACADEMIC MEDICAL CENTER-ANCHORED GROUPS

HANNAH JAMES, MS, LAURA NASUTI, MPH, PhD, RACHEL SALZBERG, DAVID AUERBACH, PhD

MASSACHUSETTS HEALTH POLICY COMMISSION

INTRODUCTION

Chronic condition management is necessary to prevent or delay premature advanced disease progression, which can be extremely debilitating and costly. For example, individuals living with diabetes have medical expenditures that are more than two times higher compared to individuals without diabetes.[1] Primary care providers (PCPs) play an important role in managing health care utilization and spending for patients living with chronic conditions. Additionally, organizational structures of provider organizations may inform practice patterns strongly influence utilization and spending.

Prior research from the Massachusetts Health Policy Commission (HPC) found that patients with a PCP affiliated with a provider organization anchored by an academic medical center had higher health care spending compared to patients with a PCP affiliated with a physician-led provider organization, even after adjusting for patient risk score and other demographic characteristics. This research showed that most of the total spending difference between AMC-anchored groups and physician-led groups was explained by differences in hospital outpatient spending.

OBJECTIVES

The HPC sought to further examine differences in utilization, spending, and quality for patients living with diabetes who are attributed to either physician-led provider groups or academic medical center-anchored groups and isolate the impact of organizational structures.

A prior HPC study had examined the total patient population; the current study restricts the study cohort to patients with diabetes to:

- create comparable groups of patients receiving care from distinct provider groups,
- focus on a patient population where input from primary care providers can be critical, and
- allow for the assessment of claims-based quality measures.

STUDY DESIGN

The HPC conducted a claims-based analysis using the Massachusetts All-Payer Claims Database (APCD) linked to a comprehensive state registry of physicians and their provider organizations.[2] Patients were linked to their PCP through either a payer's assignment flag, or, if there was no assignment, based on visits and prescription history.[3]

The study population was limited to commercially insured individuals between the ages of 18 and 64 who had continuous enrollment in 2015. The study population included individuals who had a diabetes chronic disease indicator from the Johns Hopkins ACG® System, an ACG risk score less than five, and whose care was attributed to either a physician-led group or an AMC-anchored group through their PCP.

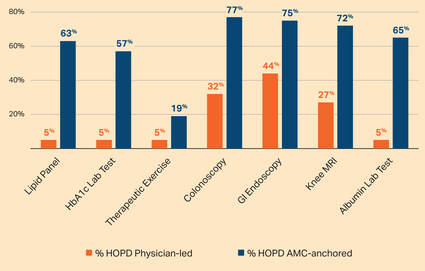
A cohort of 10,403 individuals met these inclusion criteria. The physician-led group had a sample of 2,770 patients, while the AMC-anchored group included 7,633 patients. The two patient groups had equivalent average risk scores, age, and sex distributions.

These analyses used the Health Care Cost Institute (HCCI) classifications to group individual claim lines into professional and outpatient categories for analysis of spending.[4] Analyses examining prices and utilization were restricted to a set of high volume or high cost services. Outcomes and quality of care was examined by utilization of PCPs, ED utilization, and laboratory testing recommended for patients with diabetes.

RESULTS

Although the two patient cohorts were almost identical in age, sex, and ACG risk scores, the HPC found that **health spending was 19.3 percent higher** ($1,284 per member per year) for patients with diabetes in AMC-anchored groups compared to physician-led groups. **Differences in outpatient spending accounted for 78 percent of the difference in total spending between cohorts.**

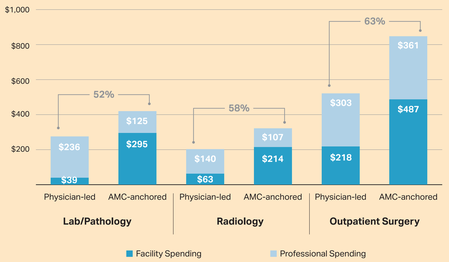
FIGURE 1: Site of care for select high volume or high cost ambulatory services for patients with diabetes



Note: All x-axis services reflect a single clinical procedural terminology (CPT) code: 80061, 83036, 97710, 45378, 43239, 73721, and 82043.

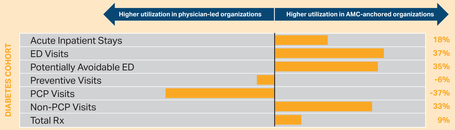
Across selected services, the AMC-anchored group received a much greater proportion of these high volume or high cost ambulatory services in a hospital outpatient department (HOPD) (**Figure 1**). This explains much of the higher overall spending in AMC-anchored groups. To account for site-shifting, the HPC examined combined spending (facility and professional fees) for service categories that can occur in HOPD and non-HOPD settings (**Figure 2**), namely lab/pathology, radiology and outpatient surgery. Spending was 50-60% higher for patients in AMC-anchored organizations across the three categories, even when considering both professional and facility fees and all settings where these services were received.

FIGURE 2: Average annual hospital outpatient and professional spending for ambulatory services for patients with diabetes, 2015



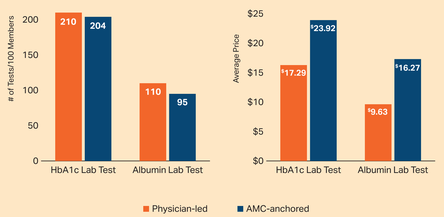
With regard to utilization, patients in physician-led organizations had more PCP and preventative care visits (**Figure 3**), but fewer ED visits and potentially avoidable ED visits compared to patients with diabetes in AMC-anchored groups.

FIGURE 3: Comparison of AMC-anchored utilization to physician-led utilization for patients with diabetes, 2015



Both groups had similar rates of recommended testing during the year; approximately 2 per member for HbA1C and 1 per member for albumin, but individuals in AMC-anchored organizations paid more for these tests (**Figure 4**).

FIGURE 4: Utilization and price of recommended monitoring tests for patients with diabetes, 2015



CONCLUSIONS

AMC-anchored groups generally had higher spending per patient than physician-led organizations among patients with diabetes. Care delivery setting, utilization, and price all contribute to higher spending in AMC-anchored organizations. As found in prior research, higher hospital outpatient spending accounted for most of the differences. Much of this spending is driven by facility fees charged in hospital outpatient departments or "global fees," where professional and facility components are combined into a single bill that were higher than the equivalent service in a clinic setting. This higher spending was not entirely explained by site of care alone.

In addition, patients attributed to AMC-anchored organizations tended to have higher utilization for all services examined except for PCP visits, as well as paying higher prices for these services compared to patients of physician-led organizations. Although utilization did contribute to higher spending, the higher prices in AMC-anchored organizations appeared to be a primary driver of the higher costs of care. Finally, there were no differences observed in selected quality measures for this patient population (e.g., albumin testing or HbA1c testing) or other outcomes such as ED utilization.

POLICY IMPLICATIONS

While many services can be safely performed in either a HOPD or office , the same service delivered in a HOPD will often cost more. These findings highlight systematic spending differences that may reflect costly organizational structures, practice patterns, and broader system consolidation over time. Bundled or risk-based payment models and incentives for individuals to enroll with more efficient PCP groups could improve overall care efficiency while maintaining high quality of care.

These findings contribute to a greater understanding of the drivers of provider organization performance variation, offering more information to policymakers, patients, payers, and purchasers of care to identify and promote the use of high-quality, efficient provider organizations.

CONTACT

Hannah James
Research Associate, Research and Cost Trends
Massachusetts Health Policy Commission
Hannah.James@mass.gov

David Auerbach
Director, Research and Cost Trends
Massachusetts Health Policy Commission
David.Auerbach@mass.gov

www.mass.gov/hpc

1. "Economic Costs of Diabetes in the U.S. in 2017," American Diabetes Association. Diabetes Care Mar 2018, dci180007; DOI: 10.2337/dci18-0007 http://care.diabetesjournals.org/content/early/2018/03/20/dci18-0007
2. https://www.mass.gov/service-details/registration-of-provider-organizations
3. Health Policy Commission. 2017 Cost Trends Report. Mar. 2018. Available at: https://www.mass.gov/files/documents/2018/03/28/Cost%20Trends%20Report%202017.pdf.
4. HCCI publically available cross-walks were used to identified these services: https://www.healthcostinstitute.org/research/research-resources