**INTRODUCTION**

Common simple laboratory tests represent an important service category for studying price variation. These tests can be performed in a variety of settings, from a laboratory at a hospital or physician office to a freestanding testing facility. Unlike many services that require comparison of price to quality outcomes and adjustment for patient health status, simple laboratory tests should be identical across providers and the level of resources required to perform the test should not vary by patient characteristics. Lab tests and pathology accounted for 6 percent of commercial spending per member per month in 2012 in Massachusetts.1

**RESEARCH OBJECTIVES**

This project explores price variation for common simple laboratory tests both within and between different settings of care in Massachusetts.

**STUDY DESIGN**

We compared commercial payments for 10 common tests across different settings of care: hospital outpatient departments (HOPDs), physician offices (grouped into physician systems), and freestanding diagnostic facilities. We selected the tests based on a previously published study examining variation in hospital charges.1

For prices at freestanding diagnostic facilities, we evaluated Quest, a for-profit company that performs most of the freestanding lab services in Massachusetts. To group physician offices into systems, we linked the physician national provider identifier (NPI) on the claim to systems using the SK&A Office Based Physician Database. We analyzed claims for 2012 using the Massachusetts All-Payer Claims Database, from the three largest commercial payers in Massachusetts: Blue Cross Blue Shield, Tufts Health Plan, and Harvard Pilgrim Health Plan.

**RESULTS**

For these 10 tests, the sample included over 3.2 million claims from three large payers in Massachusetts in 2012, totaling $120.3 million in patient and insurer payments.

Across all tests in the sample, 65 percent of claims were billed at a HOPD, while 35 percent of claims were billed at low-cost settings of care—physicians’ offices (25 percent) and freestanding diagnostic facilities (10 percent).

For each lab test studied, prices were higher in HOPDs than for the same test in a physician office or freestanding testing facility (Figure 1). For example, for a basic metabolic panel, the median price across HOPDs was $29, compared to a price of $12 across physician systems and at Quest.

**FIGURE 1: Commercial prices for common simple lab tests by setting, 2012**

<table>
<thead>
<tr>
<th>Test</th>
<th>Physician system (median)</th>
<th>Hospital Outpatient Department (median)</th>
<th>Quest (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC with Differential</td>
<td>$11</td>
<td>$15</td>
<td>$28</td>
</tr>
<tr>
<td>Metabolic panel</td>
<td>$12</td>
<td>$16</td>
<td>$28</td>
</tr>
<tr>
<td>Lipid panel</td>
<td>$12</td>
<td>$15</td>
<td>$28</td>
</tr>
<tr>
<td>Thyroid panel</td>
<td>$18</td>
<td>$20</td>
<td>$33</td>
</tr>
<tr>
<td>Comprehensive panel</td>
<td>$31</td>
<td>$37</td>
<td>$54</td>
</tr>
</tbody>
</table>

Note: Tests in the hospital setting were only included if billed as an outpatient service. For each test performed at hospitals, we included all tests performed at least 15 times in 2012. Prices are rounded to the nearest dollar.

**FIGURE 2: Variation in commercial prices for common simple lab tests among physician systems, 2012**

Prices also varied for providers within the same setting, with far greater variation within HOPDs than within physician systems. Within HOPDs, prices at the 90th percentile were at least double the prices at the 10th percentile for all tests. Within physician systems, prices at the 90th percentile were 4 to 27 percent higher than prices at the 10th percentile (Figure 2).

We estimate that if prices for these lab tests at HOPDs were equal to prices at physician groups or Quest, if all volume were moved to those settings, commercial spending for such tests would be 54 percent lower.

**CONCLUSIONS**

Variation in provider prices for the same set of services that is not tied to value threatens goals of healthcare access and affordability that have been central to health reform efforts in Massachusetts. Simple lab tests are a particularly useful service category for studying price variation, given that these tests are services that should have no variation in quality. Even in this case, significant variation exists in prices paid for these tests. Particularly with respect to HOPDs, the magnitude of the variation likely reflects findings in previous research regarding a difference in provider leverage to negotiate higher prices with commercial insurers, supporting a need for attention to this issue at a state level.

**POLICY IMPLICATIONS**

A policy goal of affordability in healthcare suggests a need to consider efficiency in payment policy. Differences in prices between settings for the same service indicate opportunity for savings through supply-side payment policies, such as site-neutral payment, in which insurers eliminate the payment differential between settings and pay the same rate for a service regardless of where the service is performed.

Furthermore, providers increasingly have incentives to seek high-value ancillary providers, as adoption of alternative payment methods expands. Particularly in this context, providers may wish to consider opportunities to use lower-cost settings for laboratory testing.

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1 Based on analysis of Massachusetts All-Payer Claims Database.

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