Cost Accounting: the Key to Cost Management and Profitability in Healthcare

by Jay Spence
Managing the cost of patient care is the top strategic priority of most hospital CFOs today. As advances in medicine enable healthcare organizations to provide more effective and specialized care than ever before, the cost of care for new technologies, human capital, medical devices, drugs, and administrative costs, continues to outpace reimbursements. As healthcare shifts to more data-driven decision making, having clear visibility into key volume, cost and profitability measures across clinical service lines is becoming increasingly important for both long-range and tactical planning activities. In turn, the cost accounting function in healthcare provider organizations is becoming an increasingly important and strategic function. Decisions related to things like which service lines to grow and expand and where opportunity for operational changes or process improvement could drive hard-dollar savings all require accurate and reliable patient-level cost and profitability analytics.

### Cost accounting and service line analytics to drive decisions

Relying heavily on data to make decisions that impact profitability, healthcare provider organizations need the right data in a timely fashion to answer key questions and ultimately drive decisions in their organization. Effectively using service line volume, costs, and profitability metrics to support strategic business decisions is becoming a requirement to support cost containment initiatives and maintain or even grow profitability. Hospitals are using this data to formulate integrated business planning across their lines of service and influence revenue, reimbursements and most commonly operational plans.

Some of the most common questions answered with service line analytics include:

- Which services and patients are most profitable?
- How are shifts in volume and mix of services impacting my bottom-line over time?
- Is there opportunity to influence physician behavior to impact the cost-of-care?
- How do we establish budgets for the delivery of patient care?
- How do I model/forecast how shifts in volume or mix impact revenue and workload and overall profitability?

With insight into service line cost data and profitability analytics, healthcare provider organizations can make informed decisions on which service lines to grow and which might require restructuring. With continual changes in the delivery of patient care and downward pressure on reimbursements, healthcare providers need visibility into key volume and profitability to support sound strategic, financial and tactical planning.

### Challenges to efficient and accurate cost accounting and service line analytics

Unfortunately, many organizations struggle to produce accurate and timely views of service line volume, cost and profitability analytics. Ineffective costing approaches are a direct result of using antiquated technologies that are either too complex and resource intensive to be effective or too simplistic to meet their needs. Following are the three most common challenges to successful cost accounting and service line analytics.

1. **Detailed Costing Frameworks Prove Inefficient**

   In the past, healthcare organizations mistakenly believed highly detailed cost accounting systems would, by definition, produce more accurate results. These strategies weren’t effective because they placed too much emphasis on collecting the most granular level of detail rather than identifying key drivers of cost that are consistently captured on patient records—practical data that could actually support better business decisions. With all of their excessive detail—providing breakdowns of a single activity by job class and by prep, procedure, and postprocedure time estimates—costing models became difficult to change and maintain. Because of their complexity, costing models lacked the flexibility to support the dynamic nature of healthcare such as adding new procedures or revising or deleting other clinical processes. Additionally, if organizations failed to revise costing models in a timely manner, the resulting cost and profit metrics were neither actionable nor valuable. Overwhelmed with unnecessary detail and trapped by rigid frameworks, clinically-focused decision makers found it difficult to use, much less trust, costing models and numbers.

2. **Overly Simplistic Methods Prove Inaccurate**

   In stark contrast to highly detailed frameworks, many organizations adopted percent of charge methodologies that allowed costing models to be developed at patient, procedure or even service line levels. This was a highly efficient approach to establish ‘proxy’ numbers for cost but did not provide sufficient detail to generate buy-in from clinical stakeholders. In turn, this data wasn’t used to identify true process of care differences or outliers that might influence the care delivery process- decisions that could have a bottom-line impact.

3. **Limited Buy-in and Management-Use from Executives and Clinical Stakeholders**

   Another common roadblock to the strategic use of costing data is establishing trust and buy-in related to the accuracy of information being disseminated. For many, the efficient
reconciling of aggregated year-to-date patient-level volume, revenue and cost data back to the financial statements is an important tollgate prior to releasing data, and a process that is time-intensive for some, impossible for others. This is especially true if more complex patient cost assignments are done using standard costs, or highly detailed itemized activity-driven methods that build-up activity-related costs but have little tie back to actual posted financial expenses. And even for those organizations where auditing tollgates are in place, their antiquated decision support systems make reporting a challenge. Functioning like big calculators, the resulting output must be downloaded and reformatted in disconnected, offline Excel models. This makes reporting a time and very resource-intensive effort. The lack of consistency, as well as the timeliness of data delivered compromises its value and the data does not contribute to (or influence) strategic decision-making.

Ultimately, cost accounting problems undermine trust in costing results. Without key stakeholders accepting that numbers as accurate, senior-level executives cannot rely on the information to make the strategic decisions.

**five strategies to make cost accounting a more strategic function**

Whether your organization is plagued with inefficient or inaccurate cost accounting and service line analytics tools and processes or you are exploring a solution for the first time, it's important to employ best practice strategies and techniques that have proven successful. The following five best practices should be considered regardless of where you are in the journey:

1. **Structure a Costing Model that Balances Efficiency with Accuracy**

Healthcare provider organizations are avoiding highly simplistic patient-level (ratio of cost to charge - RCC) approaches in favor of more ‘activity-based’ approaches. Using the charge master as a proxy for activity drivers is an approach that makes sense in a hospital setting since it is well-understood by department managers and is tracked consistently on patient records. And by establishing costs at this level of detail, it provides an accurate representation of the utilization of services provided on a patient-by-patient basis. Another decision point is determining how to structure costs within the costing model. This is typically part of a mapping exercise where actual GL level expenses are summarized into summary categories, or ‘cost pools’. However, the trend is to move away from highly summarized groupings (i.e., direct labor, direct supply) into more refined categories (i.e., patient care labor, implants, drugs). By doing so, the subsequent step to allocate and assign costs from those ‘cost pools’ to the charge item level – more broadly described as the RVU development process – can be more precise. Further, as the diagram below suggests, it is ideal if the categories developed carry-forward from financial views to patient-detail. By doing so, you retain a level of granularity that supports the downstream service line and population specific analysis.

**DATA MODEL CONSIDERATIONS:**
Retain Detail Across Financial and Patient Views

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**Diagram:**

- **Simple Data Table & Dimension Structure**
- **Data Stored Consistently from Costing Accounting thru to Patient Detail**
- **Intuitive cost modeling & processing steps**

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2. Refine Activity-Based Costs with Department Manager Input

It is vital for department managers to be engaged in the refinement of ‘cost per test’ calculations for their area. Manager participation not only promotes their buy-in to the process overall, but their expert knowledge related to the delivery of patient care activities will ultimately improve the quality of the costs derived downstream at a patient level. This collaboration provides an opportunity to challenge the standard charge master as the best source of activity or detail. As an example, be critical of nursing departments where a simple room and board charger may not accurately reflect the true ‘care’ delivered patient-by-patient. Many organizations reflect acuity levels to properly capture the resources required to address more acute care patients. Costing of medical supplies is another area where traditional RVU-based costing methodologies should be replaced with more refined direct costing methods. Manager’s typically have knowledge of the source systems where this information is updated and stored which can lead to automated feeds of item costs into the model.

3. Streamline Data Validation and Reconciliation Tasks

Gaining sign-off from finance on the validity of costing results is an important step in the rollout process and should happen ahead of releasing monthly or quarterly reports to key stakeholders. This presentation should be an intuitive walk-through of financial results starting with a consolidated income statement from the financials and footnoting of any variances that might exist to consolidated patient-level costs. This dialogue with finance often uncovers areas and suggests methodologies for ‘passing-thru’ specific revenues or overhead related costs directly to specific patient populations. Given finance’s expanding role as a strategic advisor to the organization in business planning activities, gaining their confidence and trust in these numbers is important.

EFFICIENT AND PRECISE CHARGE ITEM LEVEL COSTING:
Flexible Methodologies including, Time-Based, RVU, Direct Cost

![Diagram of Automated Notifications Streamline RVU Inputs]

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<table>
<thead>
<tr>
<th>Charge Item</th>
<th>Methodology</th>
<th>LABOR</th>
<th>VAR EXP</th>
<th>SUPPLIES</th>
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<tr>
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<td>$120,000</td>
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<tr>
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<td>RVU</td>
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<td>#3</td>
<td>DIRECT COST</td>
<td>60</td>
<td>1</td>
<td>$7,500</td>
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</table>
4. **Provide Timely and Consistent Views of Service Line Performance**

Once the patient level database is audited, the information is ready for management use. However, all too often, the time and energy spent by the decision support team is allocated heavily toward preparing one-off ad hoc analyses. Instead, make a concerted effort as a decision support team to be less reactive to ad hoc requests and more proactive with comprehensive views of volume, cost, and profitability trends across service lines. These reports should not be ‘snapshots’ in time – focused on a single time period – instead they should provide ‘year-over-year’ comparisons with meaningful ‘per case’ and ‘per visit’ measures. Analysis should isolate the variables and drivers to changes in margin, including payor mix shifts, changes in net revenue per case, or increased supply costs. Analytics should provide ‘drill-thru’ capabilities that help analysts offer explanations related to ‘why’ variances exist.

5. **Assign Accountability to Clinical Service Lines**

Even with a well-implemented costing methodology and effective reporting, many organizations fail to achieve value from their investment in decision support because no one ‘owns’ the results. To ensure action is taken on opportunities identified, many organizations are aligning their organization structures along clinical service lines. This helps foster a sense of ownership and accountability around service line performance and provides the executive attention and support needed to implement changes.

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**SERVICE LINE PERFORMANCE REPORTING:**
Timely and Consistent Views of Volume, Revenue & Cost Trends

Leadership

Cardiology
(Jill Davis)

Orthopedics
(Pat Smith)

Population Analysis
Per Case Trends

Payer Analytics
Profitability Analysis

Deliver Comprehensive Views of Service Line Performance Trends.
**Kaufman Hall’s approach to cost accounting and service line analytics**

Kaufman Hall’s unified performance management platform provides the frameworks needed to perform accurate patient-level costing but also offers the flexibility and control needed to address unique requirements when needed. With this, hospitals and health systems effectively streamline the process of developing patient level costs with efficient and repeatable methods that ensure timely and accurate reporting of performance analytics across patient populations.

The following paragraphs highlight the key components of Kaufman Hall’s solution for efficient and accurate cost accounting and service line analytics.

**Streamline Data Reconciliation and Validation Tasks**

The platform’s configurable data model ensures that hospitals and health systems can efficiently integrate data from a variety of financial and patient-centric sources to develop a rich data source. Import processes are easily automated with system notifications and audit checks that streamline data validation and reconciliation processes. By streamlining these important data validation functions, time and resources are allocated away from tedious auditing tasks toward more strategic analysis and decision support functions.

**Manage Cost Attributes and Overhead Allocations**

As the business of healthcare is constantly evolving, many healthcare organizations are struggling with outdated cost accounting tools and processes that don’t offer the flexibility to address their changing needs. In contrast, Kaufman Hall provides organizations with the flexibility to assign operating expenses into any number of cost pools, such as direct variable labor, direct variable supplies, and high-cost devices. This level of flexibility and control ensures that resulting patient-level costs have the level of granularity needed to support actionable management reporting.

**Efficiently Validate RVU’s and Charge Item Costs**

Kaufman Hall also streamlines the review and update of RVU’s by Department Manager with intuitive on-line modeling. Automated notifications trigger when on-line models are available for review. Intuitive views and instructions guide managers thru the update process. Built-in workflow tools help to streamline this update and review process by monitoring the process associated with changes or updates to cost factors and RVU’s. With these automation tools, the important process of validating charge item costs becomes an efficient and repeatable process.
Deliver Trended Views of Service Line Analytics

Kaufman Hall’s built-in reporting tools empower Finance professionals to deliver insightful views of volume, cost, and profitability measures across clinical service lines. With highly flexible and configurable formats, users are provided with actionable information. Trended views of key indicators and analytics can be presented at any dimension, including by Service Line, DRG, Physician and Payer. And with powerful ad hoc reporting capabilities, users can quickly drill from consolidated reports to the underlying details, including to patient and charge item detail levels. These interactive reports can be accessed online through the Web-client, or distributed automatically (including e-mail delivery).

Leverage Service Line Metrics to Improve Planning Accuracy

With Kaufman Hall’s unified approach to decision support, Finance can more accurately model the impact that changes that service line growth will have across revenue and expense plans. This integrated approach helps align strategic planning functions – such as growth and investment plans that are being evaluated to key service lines – with the impact modeling and budgeting that is performed across nursing and ancillary departments.

Conclusion

With the pressure on healthcare provider organizations to deliver and sustain healthy financial outcomes, having access to a trusted source of service line cost and profitability analytics has never been greater. High-performing organizations are leveraging new technologies and implementing efficient and repeatable processes that can balance accuracy with efficiency so information is more timely and accurate than ever before. While it may seem pretty daunting organizations should choose at least one strategy and begin working to put it into practice today.

About Author

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Jay Spence is Vice President of Solutions Marketing with Kaufman Hall’s Software Division. Mr. Spence has more than 20 years of experience working in the healthcare industry helping organizations leverage technology to improve their financial management capabilities. He joined Kaufman Hall in 2014 with the firm’s acquisition of Axiom EPM, where he served as Vice President of Healthcare Solutions since 2010.

Mr. Spence has authored articles for various industry periodicals, including Trustee and the Healthcare Financial Management Association’s hfm magazine and Healthcare Cost Containment newsletter. He holds an M.B.A. from Hawaii Pacific University and a B.A. in Accounting from Babson College.

About Kaufman Hall

At Kaufman Hall, we believe that sustained success is never an accident. It is the result of sound decision making, based on data-driven analysis and disciplined thinking, guided by the fundamental principles of corporate finance. As a leader in the development and implementation of healthcare strategies for almost 30 years, Kaufman Hall is uniquely equipped to help hospitals and health systems come to terms with the opportunities and challenges that lie before them and determine how best to position their organization moving forward. Since 1999, Kaufman Hall has offered a sophisticated performance management software platform that enables data-driven analysis for long-range planning, budgeting, forecasting, reporting, decision support and analytics, capital planning, and more.