CFOS' FATAL FLAW:

SURVEY FINDS 9 OF 10 HOSPITAL EXECUTIVES DON'T KNOW THEIR COST

STUDY OF 100 EXECUTIVES AT HEALTHCARE DELIVERY SYSTEMS CONDUCTED BY STRATA DECISION TECHNOLOGY AND *BECKER'S HEALTHCARE*

Overview

A recent survey of 100 hospital and healthcare delivery system executives conducted by Strata Decision Technology and *Becker's Healthcare*, found that 90 percent of those responsible for care don't know the cost of it. This gap is driving the rapid adoption of more advanced cost accounting applications that make data more accurate, accessible and actionable.

CFOs are now recognizing this simple, fatal flaw – how can you manage cost if the people responsible for it have no access to information? Recognizing that over $3.2 trillion is spent on healthcare in the U.S. every year, with over $1 trillion flowing through hospitals, the lack of tools to effectively understand and manage the cost of care represents a black hole of stunning proportions.

The end result is that most CFOs are left to manage the cost crisis in the pitch dark. The typical CFO for a U.S. healthcare delivery system is managing the financial engine for a multibillion-dollar business with thousands of employees and razor-thin operating margins that average 2 percent. They are seeing their core inpatient business declining in volume by close to 3 percent per year over the last five years. With that said, their biggest challenge ahead is that their already shaky business model is being flipped upside down with the introduction of capitated and bundled payment programs that hold hospital systems accountable for taking on the risk of a fixed top line.

With margins this thin, growth this challenging and a future this uncertain, you would quickly conclude that understanding and managing cost would be mission critical.

Surprisingly, over 90 percent of U.S. hospitals either don't have a cost accounting system or have one that is outdated and insufficient. And physicians and other clinicians whose decisions control roughly 80 percent of a hospital's total spending are provided with little to no information on cost. The end result is a lack of accurate and actionable cost data that has made consistently understanding, managing and driving out cost close to impossible.

Understanding expenses in a hospital is complex. Hospitals consume and produce a staggering amount of services and products every day, ranging from 12,000 to 45,000 individual items. Implementing and maintaining sophisticated costing models on this scale has been challenging. With that said, one of the primary issues has been the flawed model of using a ratio of cost to charge (RCC) methodology to estimate cost. This standard has proven to be inaccurate due to its flawed premise, because the actual cost of a product or service doesn't necessarily correlate to what you charge for that item in any industry. For example, if you sold a cup of coffee for $2.00 and used an RCC of 75 cents, your estimate of cost would be $1.50 and your margin would be 50 cents. But if you decided to raise the price to $4.00, your costs wouldn't automatically go up to $3.00. If you cut the cost to $1.00, your costs wouldn't fall to 75 cents. It's easy to see how inaccurate this approach would be for any business interested in understanding their true cost or margin.

In healthcare, where the hospital chargemaster is seen as a black box and what providers actually charge for an item is often more art than science, the current standard of applying a RCC to estimate cost often leads to inaccurate conclusions, leaving few hospital administrators with the ability to have any understanding of their true operating margins.

In addition to the recognition of the flaws of the current approach, the need to understand cost is also increasing due to market pressures. Hospital systems' growing participation in capitated or risk-based payment models is driving organizations to see value in gaining a deeper understanding of their clinical data and true costs, as well as how those data sets interact. In these new models, the need to understand margin is very clear. Without accurate costing data, healthcare organizations are flying blind in these agreements and deciding how to improve processes, redesign care and drive value is extraordinarily difficult.

Recognizing the operational issues that need to be solved and the strategic value of understanding cost, hospital system CFOs are moving quickly to implement advanced cost accounting applications that provide accurate, accessible and actionable information on the cost of care delivery for their organization.

This report examines the state of cost accounting in hospital systems today, including organizations' current cost accounting capabilities as well as their preparedness for costing in value-based payment structures. It then provides an overview of the movement to implement advanced cost accounting and identifies five factors driving hospital system CFOs to put new systems in place.

Methodology

This research draws on a survey conducted in May 2017 of 100 healthcare finance, operations and clinical leaders by Strata Decision Technology and *Becker's Healthcare*. The survey set out to evaluate cost accounting practices at healthcare provider organizations nationwide. Survey participants represented a range of provider types, including large academic medical centers, regional health systems, children's hospitals and independent community hospitals. About 40 percent of respondents held financial roles within their organizations.

> **One in 10 hospital systems use advanced costing methods.**

The Current State of Cost Accounting in U.S. Hospitals and Healthcare Delivery Systems

Cost accounting is not new to healthcare. Yet the complexity of modern hospital systems – composed of various inpatient and outpatient departments, staff, physicians, payer relationships, contracts and service lines – makes understanding costs in this environment particularly challenging.

The Strata/*Becker's* survey and associated research identified three common issues in hospital cost accounting that need to be addressed.

Current cost accounting methods are seen as inaccurate and the information isn't used

Compared to other industries, healthcare has been slow to adopt more sophisticated forms of advanced cost accounting, such as activity-based costing, cost study-based costing, physician costing and pharmacy costing. The Strata/*Becker's* survey found that while roughly 70 percent of hospitals practice some form of cost accounting, only one in 10 currently incorporate more advanced costing methods.

LESS THAN 15%

of hospitals can look at cost across the care continuum.

Instead, most organizations today – 90 percent – rely on rudimentary costing approaches, such as the ratio of costs to charges, according to a 2016 report from the Healthcare Financial Management Association. Basic costing methods like RCC are relatively straightforward and require little capital or managerial investment to complete. However, their accuracy at approximating costs is questionable at best, resulting in the data rarely being used. A Boston University study found for more than 30 percent of DRGs, average RCC-calculated costs differed from estimates made by more sophisticated methods by over 10 percent.

Most hospital systems aren't able to define cost across the care continuum

Basic costing methods allow providers to aggregate and analyze costs at the specialty or service department level. However, these systems don't have the ability to facilitate a deeper or more nuanced understanding of costs, such as the costs of treating individual patients with specific medical conditions over their full cycle of care. The Strata/*Becker's* survey found less than 15 percent of hospital systems report having the ability to look at total cost across the full care continuum.

In fact, most hospital systems struggle to accurately estimate costs for providing care within their respective facilities. According to a 2016 HIMSS survey, less than one-third of provider organizations reported having the ability to evaluate the actual cost to deliver care or the profit margin necessary per service line to maintain financial health.

Most hospital systems don't trust their data

Only 12 percent of hospital leaders report having high confidence in the accuracy of their cost information, according to the Strata/*Becker's* survey. While most healthcare organizations have a formal process for determining cost, only 39 percent of organizations reported regularly reviewing costs to ensure their data is current. Due to this and the recognition of the flaws of the RCC methodology, end users often don't trust the data and aren't incorporating it into their daily workflow.

ONLY 12%

of CFOs have "high confidence" in their cost data.

Ensuring financial leaders use high-quality data to support clinical and strategic decision-making is critical. Feeding low-quality data into analytics or using inaccurate data to drive decision-making can produce the wrong conclusion and negatively affect patient care and financial performance. With that said, many hospitals still continue to run a costing process, producing data that no one uses and leading to a waste of time and resources.

Understanding the Benefits of Advanced Cost Accounting

Over the last five years, legacy cost accounting systems are increasingly being replaced by Advanced Cost Accounting applications that provide accurate, accessible and actionable cost information. Advanced Cost Accounting includes a set of methodologies including time-based, activity-based costing (ABC), as well as supply-based and pharmacy-based costing, cost study and relative value unit (RVU) based costing. One methodology alone is not sufficient to consistently and accurately understand cost in healthcare. Healthcare is very different from other industries due to the data that is available, the variety of patient conditions, physician preferences, site of care, as well as the non-homogeneity of expenses and how they are tracked. Cost accounting needs to be accurate and comprehensive, but most importantly it has to be a scalable process.

Advanced Cost Accounting helps address these issues. Expenses are categorized and attributed to patients based on the most practical and accurate methodology available to a provider organization. It provides a library of approaches based on the setting as well as data available to automate the process, such as EHR-based time stamps. The focus is on all the potential opportunities for identifying variation while ensuring the effort is worth the output. Leveraging a data-driven approach reduces the need for manual intervention to identify costs and enables organizations to identify true cost variation for every patient.

> **39 percent of hospitals regularly review and update their cost data.**

More advanced costing methods also take into account additional costs that are not always included in the summation of charges on a hospital bill, such as the cost to treat surgical site infections or "invisible" choices and processes during treatments as well as waste. This "Swiss Army Knife" toolset of multiple methodologies is quickly becoming the new standard.

Advanced cost accounting incorporates a variety of clinical and financial data going beyond the traditional charges and volume information. The sources that form the building blocks of advanced cost accounting are from across the continuum of care and provide drivers to accurately attribute costs to patient activity include the following:

- Payroll
- Physician billing activity
- Post-acute activity
- Surgical detail
- Chargeable and non-chargeable supply detail
- Pharmacy detail and pricing (340B variation)
- Patient clinical and demographic detail
- EHR time stamps
- Order set detail

Key Drivers Behind the Shift to Advanced Cost Accounting Applications

Market forces are driving the need for hospitals to understand their costs at a deeper and more actionable level. As systems move toward population health management and expand into clinically integrated networks, hospitals feel the urgency to understand the actual costs associated with specific patients and particular procedures. Otherwise, changes in utilization patterns could have significant and unintended consequences on hospitals' bottom lines.

The Strata/*Becker's* research identified the key factors driving hospital systems to adopt advanced cost accounting solutions in preparation for value-based medicine.

Understanding true margins

Advanced costing methodologies can give hospital system leaders visibility into an organization's true margins on an episode or service line basis by accounting for additional costs accrued after the point of service. As more providers take on risk, they are increasingly exposed from a financial perspective. Understanding their margins as they negotiate, which over 90 percent of hospitals can't do today, is only the first step. Once they put that contract in motion, they need to understand the variation by physician for every patient they treat and for every procedure they perform.

Identifying opportunities to reduce cost

As changes to the healthcare business model increasingly place emphasis on outcomes-based reimbursement, it is important for hospital and health system leaders to ensure their respective organizations take advantage of the appropriate technologies to both eliminate wasteful expenditures and ensure patients receive optimal care. Using advanced costing methodologies that incorporate quality data for a specific procedure, such as knee replacements, hospital systems can track and identify which types of adverse clinical variations are most costly to the organization over a period of time. Armed with this knowledge — as well as the data to back it up — financial and clinical leaders can target the greatest cost-cutting opportunities while also improving patient outcomes.

Viewing the total cost of care across the continuum from both inpatient and outpatient settings

As care migrates to outpatient settings, the ability to integrate and understand costing outside an organization's four walls is increasingly important. Traditional cost accounting systems often don't have the flexibility to integrate cost data from affiliated organizations outside the hospital setting, such as physician practices and post-acute providers. Some hospital systems have focused on understanding costs of care in a particular setting, such as an inpatient admission for acute myocardial infarction or for a specific surgical procedure. Understanding costs for units of care will remain critical. However, holistic payment necessitates understanding costs across organizations and care settings and, often, over long periods of time. Advanced cost accounting solutions integrate with other data sources to provide a cross-continuum view. Once hospital systems understand costs and quality outcomes across the entire episode of care — from inpatient admission to 90 days post-discharge — they can begin forming a financial and clinical strategy for effectively participating in bundled payment models.

Sharing the financial impact of harm events and variations in clinical care

Clinical and financial leaders at Yale New Haven (Conn.) Health System (YNHHS) developed Quality Variation Indicators (QVIs) to examine how clinical variation affects case cost and overall margins for specific procedures. Specifically, QVIs help to identify cases in which patients experience potentially preventable variations in quality, such as a surgical site infection, and assess the effect on patient care and case cost. YNHHS tracks nearly 30 QVI categories, including central line-associated blood stream infections, deep vein thrombosis, readmission and perioperative pulmonary embolism. YNHHS found incorporating QVIs into case costing increased total costs between 300 and

400 percent on average compared to cases without QVIs. Using this costing method, the organization determined it was spending more than expected over a single episode due to clinical variation while earning the same net revenue, resulting in a considerably smaller profit margin. QVIs are one type of advanced case costing helping both clinical and financial leaders root out and understand indirect drivers of cost variations. This balanced view of performance is central to reducing variation and competing in a value-based care setting, and is a major driver in the movement toward advanced cost accounting.

Accessing accurate cost information more quickly and frequently

The reliance on older, inefficient cost accounting systems has caused most organizations to run their costing process just once or twice per year, in many cases. Additionally, when they run costing, the process often takes a number of days to complete due to the size of the data and legacy costing applications' lack of sophistication. Hospitals can gain several benefits from running costing more frequently. Running daily or weekly costing processes supports financial, clinical and operational decision-making by ensuring department leaders have the most current and reliable data on hand. Advanced cost accounting systems also have costing engines capable of modeling costs using multiple methodologies — such as RVUs, ABC, time-driven ABC and supply acquisition cost — for more accurate, reliable conclusions. More advanced systems that can run the costing process in minutes versus days or hours.

Creating an integrated approach to financial planning and performance

With an accurate costing process in place, providers can roll out a more integrated approach to financial planning. Providers can identify cost savings opportunities via cost accounting methods, put programs in motion and then adjust long-range financial plans and operating budgets to ensure the cost savings stick. Augusta (Ga.) University Health System is one such organization that has made cost accounting part of an integrated financial performance approach. The two-hospital system recently engaged in strategic planning for a new 100-bed hospital and leaders needed reliable, valid data to confidently plan for the future. Specifically, system leaders wanted to calculate spatial needs per department based on clinical growth projections. They also needed to predict how adding services at the new facility would affect volumes at their flagship and outpatient locations.

However, financial and growth reports crunched by different teams revealed different data, causing hospital system leaders to question the data's accuracy. Augusta's business leaders realized they needed an accurate method to calculate the true cost of a surgical case and turned to an advanced cost accounting solution for answers. Augusta first implemented advanced costing in its perioperative services unit, including an adult operating room, a children's hospital operating room, labor and delivery, a cardiac catheterization lab and a digestive health center. By combining cost data with financial data in the decision support system, executives gained visibility into costs and margins per episode of care and identified true cost drivers. In the past, $10 million in equipment and labor costs were distributed among all OR cases. Advanced costing enabled financial leaders to attribute that cost to specific procedure codes and cases, changing the true margins across various surgical lines. Executives then extrapolated from this information to understand overall business and patient trends for long-term strategic planning. The team uses this data to determine whether to accept or reject business proposals. Now, Augusta's system CFO, Vice President of facilities and directors of marketing and outreach meet regularly to incorporate market share, volume projections and other data into long-term plans.

Conclusion

In the past, cost accounting has been undervalued and underutilized as accuracy and accessibility of information on cost wasn't seen as a necessity in traditional volume-driven payment models. This is not the case in risk- or value-based medicine. Without credible and detailed cost data, it will be extraordinarily difficult for healthcare organizations to strategically manage their operations and minimize the impact of declining reimbursement.

With close to 90 percent of healthcare leaders operating in the dark on cost, leveraging data from advanced cost accounting that is comprehensive, accurate and accessible is mission critical. Providers are then able to collaborate and make more informed decisions in order and ultimately deliver more value to the patients and the community that they serve.

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