



White paper

# Activity- Based Costing's Time Has Come

How healthcare finance executives must consider the actual cost of services for long-term success

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# Table of contents

- Introduction .....3
- Activity-based costing makes inroads into healthcare .....4
- Time-driven ABC .....5
- Automating ABC .....6
- Survive and thrive with ABC .....7
- About us. ....8
- References . ....9



# Introduction

The vast majority of healthcare providers don't know how much it costs them to deliver patient care. According to the Healthcare Financial Management Association (HFMA), under 10% of hospitals and healthcare systems have advanced cost accounting systems capable of providing accurate cost data across the continuum of care.<sup>1</sup>

However, that's starting to change. Several trends are hurting providers' bottom lines, and the organizations that will survive and thrive in the long run will be those that have a true understanding of cost.

Healthcare organizations must pay more attention to cost accounting for three reasons. First, as a result of the coronavirus pandemic, about half of U.S. hospitals are operating at a loss, and their financial predicament is expected to worsen unless they get a lifeline from Washington.<sup>2</sup> This pressure will force them to scrutinize their cost structures.

Second, the government's new emphasis on price transparency will enable consumers to compare the prices for specific

services across providers in a market. Beginning Jan. 1, 2021, hospitals will have to post their "standard charges" for items and services, including the prices they've negotiated with health plans<sup>3</sup> (the American Hospital Association has sued to stop this rule from going into effect<sup>4</sup>). This will allow patients to shop around for lucrative procedures such as knee replacements. If this transparency forces providers to cut charges to meet the competition, they'll need an accurate picture of their underlying costs.

Third, the U.S. healthcare system is moving slowly but surely to value-based care. To the extent that a hospital's or an ACO's value-based-care contracts entail financial risk, providers will need to understand their costs in order to manage within a budget and avoid losses.

## **Three reasons to shift to activity-based costing in healthcare now**

- Worsening organizational financials due to COVID-19 warrant detailed cost analysis
- Consumer price transparency is coming; consumerism and competition may force pricing to change
- Value-based care and the need to take on financial risk will require managing to budget and preventing losses

Advanced cost accounting is also required for quality improvement in a value-based context. As Robert Kaplan and Michael Porter noted in Harvard Business Review, hospitals often allocate their costs based, not on the resources used to deliver care, but on reimbursement. "Since providers misunderstand their costs, they are unable to link cost to process improvements or outcomes, preventing them from making systemic and sustainable cost reductions," Kaplan and Porter explain. "To properly manage value, both outcomes and cost must be measured at the patient level and must encompass the entire cycle of care."<sup>5</sup>

# Activity-based costing makes inroads into healthcare

In many industries, costs are increasingly measured and tracked using “activity-based cost accounting.” While little utilized in healthcare, this decades-old approach is much more accurate than traditional healthcare accounting methods such as “ratio of cost to charges.”<sup>6</sup>

Under activity-based cost accounting (ABC), a healthcare organization computes the actual cost of services, supplies and other operational areas on a per-case basis. In the context of payment bundling and other forms of value-based reimbursement, the definition of a case, or episode of care, might be broader than a hospital admission; it might also encompass post-acute care and/or ambulatory care. To calculate the total cost of care delivery, the entity doing the cost accounting would need access to data from all of these providers.

ABC begins with an effort to identify the activities and resources used in producing an output. Indirect expenses, such as facility costs, are then allocated to these activities using cost drivers that reflect the use of each resource pool.<sup>7</sup>

This sounds simple, but it isn't, especially in the complex operations of healthcare. To start with, there are a lot of differences in the value of what various healthcare workers do, and those inputs must be calculated using a relative-value-unit (RVU) methodology.

According to one view, a hospital's chargemaster is the activity driver and RVUs are the primary basis for allocating costs in advanced cost accounting. Actual direct costs, time-based values, industry RVUs and non-chargeable activities should be integrated where possible.<sup>8</sup>

## Traditional ABC

A healthcare organization computes the actual cost of services, supplies and other operational areas on a percase basis

## Time-driven ABC

A healthcare organization calculates the cost of healthcare resources consumed terms of time spent as a patient moves along a care process instead of allocating resource costs to individual activities.  
Traditional ABC

The difficulty with this approach lies in the amount of work required to estimate the volume of resources involved in performing each patient service. Even large health systems may view this as a financial challenge; and, until recently, there was little return on the investment in a world where they could raise charges to private payers by using their market leverage.

# Time-driven ABC

Fortunately for providers moving into value-based care, there's an alternative called time-driven activity-based cost accounting. In this ABC variant, time is used as the primary cost driver. Providers just need to know the cost of each resource used in a process and the quantity of time the patient spends with each resource. For example, if you know a hospital OR nurse's salary and how long they spent on a particular case, you can calculate their cost portion of the procedure.<sup>9</sup>

Under this approach, clinical managers in each department directly estimate the resources needed for each case, based on workflows, rather than allocating resource costs to individual activities. Then the amount of time spent on the case or a process within it is measured.<sup>10</sup>

This is much less labor-intensive than the original ABC approach. However, the methodology has a drawback—because it doesn't identify particular activities within a workflow, it's less useful for identifying the drivers of inefficient processes.<sup>11</sup>

Last year, HFMA and Strata Decision Technologies launched a “cost accounting adoption model,” called L7, to help healthcare organizations implement either ABC or time-driven ABC. The model ranks hospitals on a seven-layer scale to show their progress on cost accounting. Modern Healthcare reported that most organizations are at level 2 or 3.<sup>12</sup>

Some providers have gone far beyond that. Baptist Health, an 11-hospital system in Little Rock, AR, for example, is using a cost accounting system sold by Epic. Fields in the Epic EHR prompt clinicians to enter information such as what types of providers were in the room during procedures and for how long. The system's hospitals also use cost accounting to reduce costs by identifying variations in surgeons' supply costs.<sup>13</sup>

The University of Pittsburgh Medical Center (UPMC) has also adopted time-driven ABC to support its valued-based-care strategy. UPMC uses an enterprise data warehouse that incorporates clinical documentation, billing and other data to track direct costs such as supply, blood and drug costs. In addition, the system developed algorithms that use the length of time that the patient spends in each care location to allocate the costs of staffing and service utilization. Where time isn't an applicable activity driver of cost, the system uses the best available activity data.

UPMC has used this cost accounting method to detect opportunities for improvement within its service lines. In women's health, for example, a comparative analysis of the cost and outcomes of various ways to do a hysterectomy led the physicians to conclude that minimally invasive techniques resulted in the best outcomes for their patients at the lowest cost. More hysterectomies were subsequently performed this way.<sup>14</sup>

# Automating ABC

A number of ABC software packages are available, and the process of calculating the cost of care delivery has become more automated in recent years. Nevertheless, cost accounting automation in EHRs has some way to go.

One research team found, for example, that workflow time stamps in EHRs have wide variations in accuracy. In some cases, staff interviews are required to obtain the requisite data for time-driven ABC. A better solution, the researchers said, is to obtain the information needed to calculate costs from the EHR without the participants being aware of it. This passive approach is still a work in progress but promises to be a winner in the long run.<sup>15</sup>

Another point to consider in implementing activity-based costing is the role of postacute care and ambulatory care providers. Healthcare systems can't succeed under value-based contracts unless they can reduce costs across the care spectrum. ACOs and their constituent physician groups must also find a way to figure out how much it costs to provide care. And PAC providers such as nursing homes and home care agencies must be able to

collect cost data that healthcare systems and ACOs can use to calculate the total cost of care.

Meanwhile, the growth of value-based contracts, the narrowing of care networks, and the transition to CMS's new Patient-Driven Groupings Model for home health care are all putting additional strains on PAC providers.<sup>16</sup> These organizations also need time-driven ABC software that can help them grapple with their costs and become full partners in value-based care.

# Survive and thrive with ABC

In the end, most healthcare providers will embrace advanced cost accounting models, because sticking to the traditional methods is not an option. With the help of new financial systems and interfaces or integration with EHRs, even smaller hospitals, physician groups and PAC providers should be able to make this transition without undue strain on their resources.

Healthcare organizations that invest in the right financial system today will be better equipped with the real-time insights and financial agility they need to not only shift to activity-based costing, but make informed business decisions. Sage Intacct, the most comprehensive financial accounting system on the market, has proven to be the goto platform for some of the industry's leading healthcare organizations. Sage Intacct solutions leverage the most advanced data technologies along with its rich history of solving the world's most complex financial challenges to give healthcare business leaders secure access to the data they need to make faster and more informed decisions.

With Sage Intacct, healthcare organizations enjoy a wide range of impactful results, including:

- Shortening the monthly close by 40% and achieving overall cost savings of \$1M annually.
- Reducing reporting time from three days to 10 minutes and eliminating 16 hours of manual payroll work each month.
- Increasing finance team efficiencies by 25% and gaining detailed insights to drive business decisions.



# About Sage Intacct

Sage Intacct is the #1 cloud financial management system for data-driven, growing organizations. Our modern, true cloud solution with open APIs, gives multi-location or multi-entity organizations a shared chart of accounts, instant and continuous consolidations, and centralized payables while eliminating manual processes for payments and intercompany accounting. Sage Intacct helps you save time and improve accuracy—without adding staff.



# About Equation Technologies

Equation Technologies provides business management solutions for mid-sized companies in the USA and Canada. We make carefully crafted recommendations from among the industry's best-performing ERP software, including Sage Intacct and Sage 300. We help you **reduce the risk in choosing and implementing solutions** by:

- Listening closely to your challenges and exactly how your business works.
- Developing processes that match your business, not requiring you to conform to a software system.
- Mapping out efficiencies using technology to improve operations without adding staff.

Our main goal is simple: have a clear understanding of our clients' goals. We believe the only way to sufficiently grasp that information is by listening first, and offering valuable advice later. We also know that one single approach is not right for all businesses. We leverage our team's vast education and business experiences across industries to focus on our clients' unique needs. We understand the importance of your business. We know when you call on us, time is of the essence and we value & respect your time.

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