

# Healthcare Cost Accounting:

Preparing for ACOs, Population Health Management

and

Lowering the Cost of Healthcare

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Organizational Intelligence

Years ago, I implemented what was considered the most advanced hospital Decision Support System (DSS) existing at the time. It was impressive, but complex, cumbersome and slow. It took a contingent of analysts to continually load, process, and reconcile data. No one, except a team of “super” users, could navigate this complex, green-screened system. Many hours were spent extracting information, formatting, and printing reports for dissemination throughout the healthcare system. Many of my colleagues experienced the same challenges, with varying degrees of success.

In spite of its shortcomings, the information produced was innovative, insightful and proved to be invaluable. I had been in hospital finance for seven years prior and was limited to using the suspect ratio of cost-to-charge (RCC) for profitability studies, and overly simplistic department statistics for labor productivity and budgeting. This new DSS addressed these shortcomings and was indeed a game changer. Now my team could provide our organization with a wealth of information and improve upon just about every aspect of financial analysis, management, and reporting.

## Many Uses of Cost Accounting

We implemented flexible budgeting for both bi-weekly labor productivity and monthly financial reports. The “flex” calculation was based on the detailed cost accounting data that addressed all the possible variables: price, volume, mix, and efficiency. I remember the fiscal report I gave to the board of directors at the end of the first year using flexible budgets. For net income, we were roughly \$30,000 YTD between the actual and the flexible budget. This minuscule variance was a milestone for this organization and a testament to the value of flexible budgeting. We were able to depart the variance merry-go-round and become more strategic and proactive in managing operations.

Capitation contracts were popular at the time, and the DSS data were instrumental in establishing our rates and risk-sharing parameters. With our new

cost data, we learned we were losing money on some of our commercial payer contracts. So, we simply cancelled them; a bold, but necessary move. They were soon reinstated with higher reimbursement rates, based on our cost accounting data. Although the payers themselves long had this type of information, they were intrigued by our new capability.

Then there was an initiative to expand into open-heart surgeries. Patients in our service area had to travel about 40 miles for this type of complex and risky procedure. There was high support to expand into this service, both from the physicians and hospital administration. Using cost accounting data, our analysis showed we would experience significant financial losses, contrary to the popular perception. The initiative soon came to an end.

Cost accounting data were also pivotal in our analyses for a large bond refinancing, expanding outpatient services, acquiring home health and long-term care facilities, implementing case-based strategic budgeting, and service line and physician profitability studies. There are many more examples I could cite about the various uses and importance of cost accounting data at that time.

### **Need for Cost Data is Even Greater**

What is interesting is that all of the preceding scenarios are still relevant today, and with current and future challenges facing our industry, the need for cost data is even greater. Healthcare organizations need to understand the relationship between cost of care and quality outcomes to maximize their ability to deliver high quality care at a lower cost. Reimbursement is evolving towards value-based payment models that reward high quality and lower cost with shared savings. These payment models often include an element of risk, potentially substantial, in one form or another.

Credible and detailed cost data are a key input when forming and operating an Accountable Care Organization (ACO) and achieving effective Population Health Management (PHM). Cost data combined with clinical data are facilitating advanced analyses and improvement initiative efforts. A comprehensive clinical dataset including cost data is required to identify, quantify and measure clinical improvement initiatives. I have seen instances of these types of analyses and they play a vital role in the pursuit of providing quality care at the lowest necessary cost.

## Many Uses of Healthcare Cost Accounting Data



Lastly, more and more physicians are becoming employees of hospital-based organizations, which increase the value of cost accounting data. Employed physicians are aligned with and incentivized by the organizations that employ them. This dynamic facilitates improved collaboration between physicians and hospital organizations and enhances the impact and value cost accounting data brings to the discussion. Providing engaged physicians with credible cost data can have a substantial impact on lowering the cost of care.

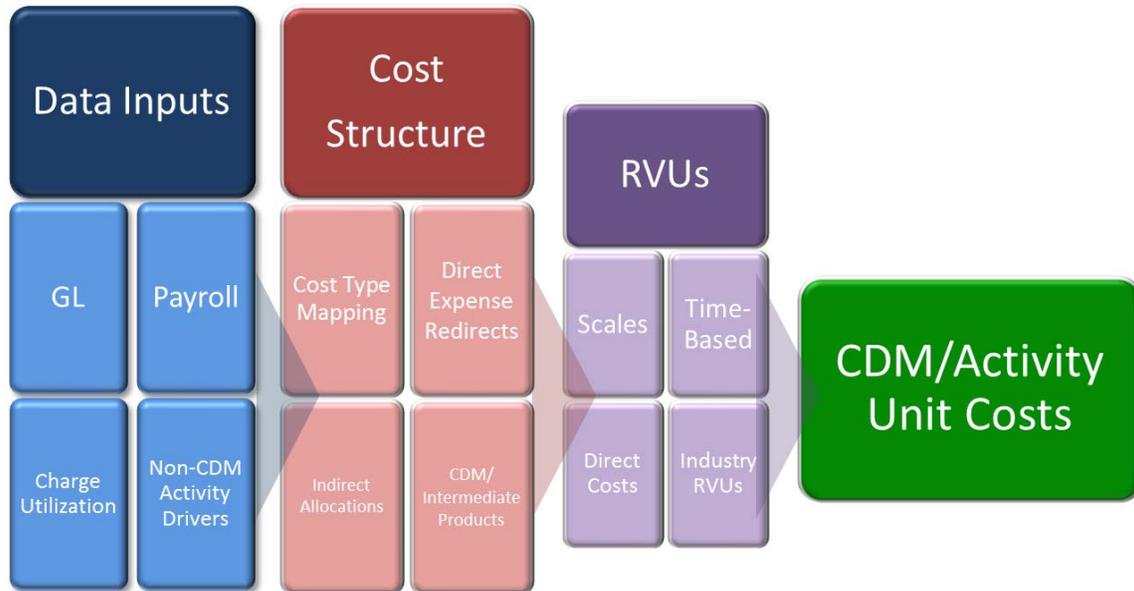
### Cost Accounting Methodology is Fundamental

Remember at the beginning when I said that the DSS I installed was complex, cumbersome and slow? The other legacy and some of the predecessor systems were and are as well. These reasons, as well as further limitations and resource demands, explain the reluctance of healthcare organizations to install and maintain cost accounting. Some estimates suggest upwards of fifty-percent of healthcare organizations still use, or have gone back to, the RCC method. The RCC method does not accurately assign cost, nor does this method provide the specific detail required to identify and act upon cost savings opportunities.

Current cost accounting methodologies for hospitals are based on process

costing concepts utilizing Relative Value Units (RVUs), vs. job costing, typical in manufacturing. The job costing methodology is not currently practical in hospital organizations due to limited patient identifiable cost data. Capturing the actual cost in the manufacturing of homogenous products is relatively straightforward. Alternatively, each patient requires care and treatment specific to their modality and diagnoses. It is this variability that requires the use of the Charge and Description Master (CDM) as the activity driver and the use of RVUs as the “primary” basis for allocating costs.

### Healthcare Cost Accounting Conceptualization



The transition to Electronic Medical Records (EMRs) will enhance costing over time and allow more cost data to be based on actual time spent on individual patients (e.g. Time Derived Activity Based Costing (TDABC)) and may also provide other patient specific cost data. Most hospitals are in the early stages of EMR adoption and are not yet capturing all of the necessary cost inputs. An affordable and off-the-shelf solution that integrates EMR data is somewhere in our futures. Until that time, an advanced cost accounting system based on charge-level costing, along with skilled resources, can make a quantifiable difference in reducing the cost of care and managing the bottom line.

### Overcoming Challenges

Healthcare cost accounting systems have traditionally taken considerable time and effort to implement. Many legacy DSS installations never met their full potential or were essentially abandoned in later years.

In addition to the challenges already mentioned, another fundamental challenge is experienced resources. Cost accounting must be approached both collaboratively and with an eye towards cost benefit. Healthcare cost accounting

requires participation from across the organization. I often refer to healthcare cost accounting as a “team sport”; requiring a collaborative effort of different skills and roles to create a success. One of the most important roles is that of the clinical department participants. Clinical department participants, often the department manager, provide their “technical estimate” for the amount of resources required to carryout the various patient care activities in their departments. These estimates are the backbone of RVU development and the RVUs then determine how costs are allocated amongst the various services provided to patients.

It is important in this role, to have a basic understanding of hospital cost accounting, but more importantly this role must be familiar with the services on their CDM and the resources required to deliver those services. I have found over many cost accounting implementations, it is best to begin with the CDM and ensure familiarity with the diverse service codes. I have come across instances where department managers or their designees, are not conversant enough with their CDM. This is a critical issue, but is quickly rectified with a little education. From there, most managers have a good understanding of the resources required to perform the various services within their department and are able to provide that all important “technical estimate”. Focusing their attention in this manner minimizes their time commitment and maximizes their effectiveness when developing RVUs.

Another challenge is the way the implementation is approached, which also has downstream repercussions. More detailed costing does not necessarily equate to superior cost data. In fact, an overly detailed approach can exponentially increase implementation and maintenance time and jeopardize data integrity due to self-inflicted complexities. This is where experience and know-how applied upfront can add tremendous value and ensure that cost and benefits are in balance.

### **Keys to Success**

There are three main areas to closely consider when selecting a cost accounting solution: software application, implementation approach, and personnel. Each of these is equally important to ensure a successful implementation and sustainable solution that will bring exponential value to your organization.

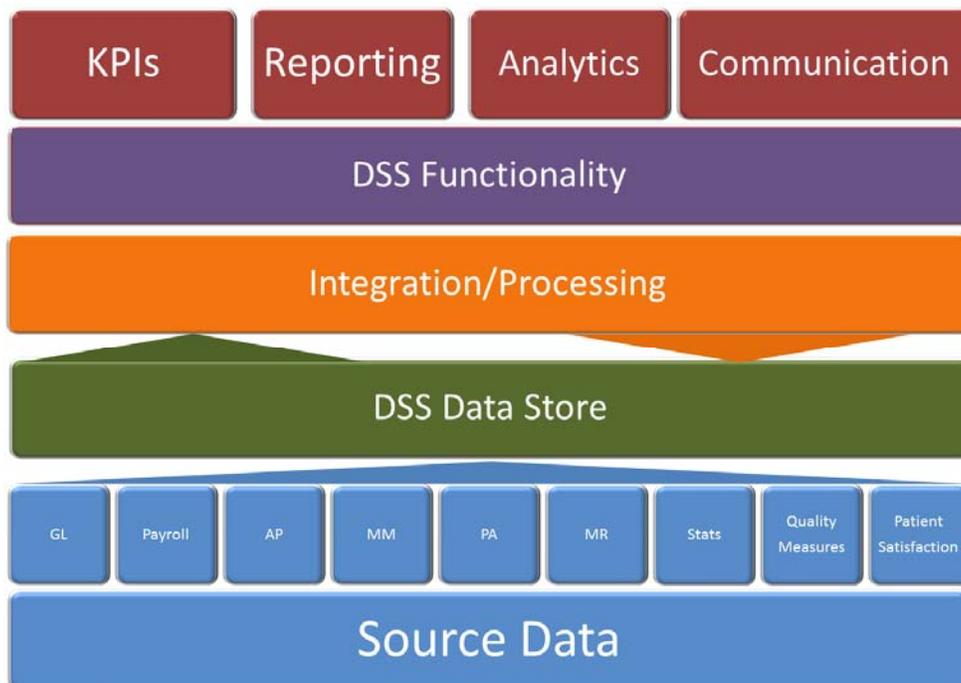
#### **Software Application**

Advanced cost accounting software provides features and functionality intended to expedite the implementation, improve cost data integrity, allow enterprise-wide access and use, and minimize ongoing maintenance. Look for a solution that provides the following:

- Scalable CDM-level costing methodology based on RVU concepts with the extent of detail flexibility.
- Expense accounts and job codes assigned to cost types based on cost behavior with unlimited sub-cost types.

- Comprehensive data quality analyzer to quickly pinpoint and resolve cost data issues.
- RVU development with timesaving options, including importing RVUs, multiple data streams, copy/paste, default values, and online entry and maintenance.
- Department “RVU Manager” assignments, with notes and audit trail.
- Transparent indirect cost allocation with bi-directional reporting.
- Fast unit cost processing allowing real-time, not batch, re-costing of the entire year.
- Dead-ended cost feature and re-assignment of indirect/direct costs to direct departments.
- Integrated and automatic calculation of flexible budget values for monthly financials and bi-weekly labor productivity.
- Integrated with encounter utilization and demographic data to provide clinical financial analyses and reporting.
- Web browser-based with user-friendly interface offered in a SAAS or local server installation.
- Automatic CDM volume importing with comprehensive audit/status reporting.
- Integration with a single DSS or performance management system providing: financial reporting, labor productivity reporting, service-line and encounter level profitability reporting, operational budgeting, case-based strategic budgeting, and contract modeling.

**Comprehensive DSS/Performance Management System diagram**



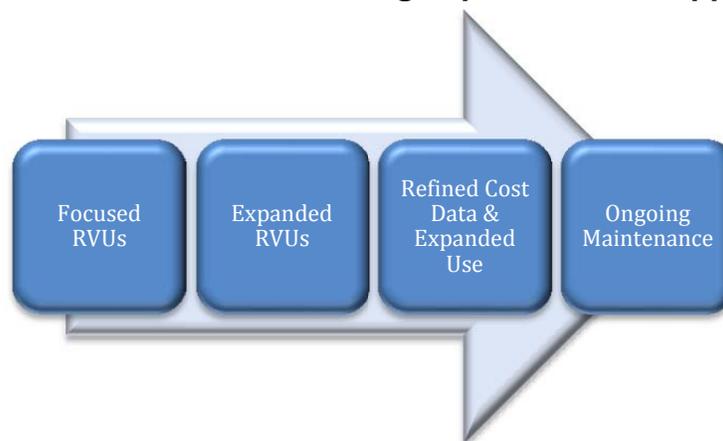
## Implementation Approach

Implementing a cost accounting solution is more of an art than a science. There are unique issues with the data of every organization and the implementation approach must be flexible enough to resolve them. Additionally, it is possible to overcomplicate the system/account setup, and or the RVU development process, to the point of diminishing returns and influence on future benefits and sustainability.

Years of experience implementing cost accounting as a user, as a consultant and as a software developer/vendor, leads me to the following recommendations:

- Use a phased and iterative vs. big bang approach.
- Utilize the 80/20 Rule to prioritize for which CDM items to initially create RVUs.
- Identify a qualified “RVU Manager” for each direct department and ensure familiarity with the department’s CDM items.
- Focus RVU development on the high-dollar cost types in the first iteration.
- Educate RVU development participants on healthcare cost accounting concepts and the value cost accounting brings to department managers and the organization overall.
- Use actual cost as RVUs or industry RVUs where possible.
- Determine the specific RVU development approach independently for each department and each cost type.
- Implementing flexible budgets, especially for labor productivity, inherently improve the cost data.
- Familiarize management and cross-functional performance improvement teams with cost data reports and analysis early on.
- Implement monthly RVU maintenance and department RVU updating protocols.

### Process Flow: Cost Accounting Implementation Approach



## Personnel

When it comes to cost accounting, knowledge and experience is very important to achieve a successful implementation and to realize the many benefits of a cost accounting system. Experienced resources will know how to address your organization's unique data idiosyncrasies and determine the appropriate cost structure and account mapping. Experienced resources will also know the best and most efficient approach to RVU development. Lastly, experienced resources know how to "operationalize" cost accounting data to maximize its use and value across your organization.

Assure that at least one dedicated cost accounting "expert" is on your implementation team, either from your organization, a consultant, or preferably from the application vendor. This resource should be familiar with the system being installed and able to facilitate project decisions, determine implementation approach and work plans, conduct cost accounting education sessions, and provide overall direction and expertise.

## Conclusion

The healthcare delivery system is undergoing significant change and the need for credible cost data has not ever been greater. Healthcare organizations need cost data to make informed decisions and cost "guesstimates" based on RCCs are not viable. Without credible and detailed cost data, it is essentially impossible for healthcare organizations to strategically manage their operations and minimize the impact of declining reimbursement.

Cost accounting is a very worthwhile and necessary investment and the issues experienced with the legacy and some predecessor systems can be overcome with better technology, functionality, and implementation strategies. Healthcare organizations that implement and maintain cost accounting systems realize the numerous benefits and find it to be indispensable given today's challenging and changing healthcare industry.

## About the Author

Steve Imus has 27 years experience in hospital finance, Big 4 healthcare consulting, and as co-founder of Organizational Intelligence. He used his experience in hospital financial management and performance improvement to address the issues of legacy DSSs and to provide healthcare organizations with innovative tools for performance management.

## About Organizational Intelligence

Organizational Intelligence offers a suite of innovative modules, providing a single comprehensive performance management system for hospitals and provider organizations of all sizes. OI offers broad functionality across the

following modules:

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- Labor Productivity & Reporting
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- Capital Planning & Budgeting
- Cost Data Development & Management
- Patient Utilization & Clinical Financial Performance
- What-if Modeling (WIM) & Strategic Budgeting
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