The Evidence is Clear: Analytics Key to Controlling Labor Costs

While many of the financial challenges that healthcare organizations face today are out of their direct control, hospital leaders that use data and analytics to work smarter not harder can take command of one of the most significant cost centers: labor.
Inefficiency Is No Longer an Option

Making the claim that American healthcare is too expensive, inefficient, and inconsistent is nothing new. But value-based healthcare—a major component of the Affordable Care Act (ACA)—is beginning to change all that by changing the game at the most basic level: how healthcare organizations get paid.

The “pay for outcomes” approach is transforming the U.S. health system from a volume-based model, where hospitals are reimbursed for services provided, to a value-based model that rewards quality and positive patient outcomes and penalizes providers that deliver lower quality and less effective care.

As the system shifts to paying for outcomes rather than products, hospitals of all types and sizes will be forced to work more aggressively than ever before to tighten spending, streamline patient care, and boost efficiency. Working smarter not harder will play a key role in the race to capture value. To remain viable in a value-based business environment, healthcare systems must initiate behind the scenes practices and processes that reduce costs, while continuing to improve quality and outcomes.

Inefficiency is no longer an option. In a report to lenders last year, Standard & Poor’s called 2014 “the tipping point—where an increasing number of [healthcare] organizations will find themselves weighed down by issues that outstrip their ability to implement sufficiently robust positive countermeasures.”

Labor Productivity Is Critical

Labor productivity is at the heart of any countermeasure designed to cut costs and improve operational efficiency.

Total labor expense can exceed 50 percent of a hospital’s operating costs and 90 percent of its variable costs. Over half of the nearly $3 trillion spent annually on healthcare in the United States is attributable to wages for healthcare workers. Yet despite keen awareness of “why” controlling labor costs is so critical, most hospitals continue to struggle with the “how” of monitoring performance, measuring productivity, and managing labor spend on a daily basis.

In the current environment, too often the response to high labor costs is heavy-handed and reactive: downsizing and lay-offs. As can be seen in the accompanying chart, the trend in hospital employment, which grew steadily in the years prior to 2009, has recently flattened. And according to the Bureau of Labor Statistics, for the first time in more than a decade, the healthcare sector lost jobs in December and overall 2013 was the slowest year of growth since 1999.

<table>
<thead>
<tr>
<th>Month</th>
<th>Hospital Employment (NAICS 622, All Hospitals) All Employees, Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/05</td>
<td>4,300</td>
</tr>
<tr>
<td>01/06</td>
<td>4,300</td>
</tr>
<tr>
<td>01/07</td>
<td>4,300</td>
</tr>
<tr>
<td>01/08</td>
<td>4,300</td>
</tr>
<tr>
<td>01/09</td>
<td>4,400</td>
</tr>
<tr>
<td>01/10</td>
<td>4,500</td>
</tr>
<tr>
<td>01/11</td>
<td>4,600</td>
</tr>
<tr>
<td>01/12</td>
<td>4,700</td>
</tr>
<tr>
<td>01/13</td>
<td>4,800</td>
</tr>
</tbody>
</table>

THE EVIDENCE IS CLEAR: WORKFORCE ANALYTICS KEY TO CONTROLLING LABOR COSTS

But slashing labor costs by cutting staff is not really a definition of “efficiency.” In fact, there’s an inherent risk it could limit the organization’s ability to comply with ACA directives, respond to changing market conditions, and deliver quality care. Cutting back on non-clinical staff, for example, can have a ripple effect, ultimately over-burdening those directly responsible for providing care and treatment, as well as undermining the delivery of other patient services. The end result is lower patient satisfaction and less-than-optimum clinical outcomes.

Rather than reduction in force, the real opportunity to reduce labor spend lies in capturing, analyzing, and capitalizing on the enormous amount of labor-related data generated by the enterprise and using more aggressive analytics to identify potential savings, put the weight of evidence behind decision-making, and immediately fix emerging issues. This more measured, data driven approach—working smarter not harder—can help healthcare organizations lower labor costs, raise workforce productivity, and improve quality of care.

Analytics Hold the Key

Evidence-based decision-making—or big data—may be the latest buzz-word in business, but it’s not just a fad. IDC (International Data Corporation) defines it as “a new generation of technologies and architectures, designed to economically extract value from very large volumes of a wide variety of data by enabling high-velocity capture, discovery, and/or analysis.” Big data’s three main characteristics are: the data itself, the analytics of the data, and the presentation of the results to influence decisions.

Big data as a significant facilitator of innovation and business growth is gaining a lot of traction in almost every industry, including healthcare. According to McKinsey Global Institute, the potential value of big data, if used creatively and effectively by the U.S. healthcare industry, could be worth more than $300 billion every year.

But “potential” is the operative word. The fact remains most healthcare organizations don’t really know how to manage the data they have. And they certainly don’t know how to turn that data into actionable information or quickly put this intelligence directly into the hands of the people who are in the best positions to respond.

In an article published in the Harvard Business Review, business consultant Thomas C. Redman and IT expert David Walker agreed: “The vast majority [of organizations] readily acknowledge themselves as ‘data rich and information poor.’ In these organizations, too few people are involved, too much data can’t be trusted, and too much data lies fallow in vast, unexamined warehouses.”

Redman and Walker could easily be describing the puzzling state of data analytics at most hospitals and healthcare facilities. Currently, according to McKinsey, healthcare providers are underutilizing 90 percent of the information they have at their disposal.

The Analytics Behind Labor Productivity

The common perception that hospitals are “drowning in data, but starving for knowledge” is especially apt when it comes to labor analytics.

Amassing actionable productivity metrics at the macro level for an entire organization is relatively easy to accomplish. But it is at the micro-level that the process becomes not only laborious and complex but also elusive.
Precision number crunching can help organizations pose key strategic questions about labor resource allocation and efficiency, plus put the weight of hard evidence behind the answers. But in order to make that a reality, hospital decision-makers need to be able to drill down deeply on department and individual job data and use intelligent analytics to make sense of the numbers.

Managers also need an effective reporting format that enhances understanding and, more important, helps hold them accountable for assuring the optimum staffing to achieve their benchmark targets for quality, outcomes, and costs. It’s not enough simply to perform data analysis. Analysis should lead to action. Rather than just displaying the data, the results must be communicated in a clear, concise form that alerts those responsible if labor expenses veer from plan, provides context, and allows deeper investigation into the underlying micro data so something can be done immediately to rectify the problem.

While some healthcare institutions have the tools to quickly and easily collect, report, assess, and respond to micro-data down to the employee and pay code level, most cannot. What’s missing is the ability to fully integrate and analyze large volumes of related data—staff levels, overtime, skill mix, etc.—and transform it into understandable, actionable information decision-makers can use immediately to improve performance.

Basic Labor Metrics

The good news is most basic labor analyses do not have to be terribly difficult. They can be performed efficiently and precisely with commercially available software or even standard Excel spreadsheets. The bad news: most hospitals don’t routinely perform such analyses because they don’t know how to access, understand, and act on the metrics.

For example, when monitoring and metering labor costs, the key financial indicator is the organization’s labor compensation ratio—a fundamental, meaningful metric computed simply by dividing salaries, wages, fringe benefits, and contract labor costs by total net revenue.

A labor compensation ratio under 50.2 percent is considered better than about 50 per cent of hospitals, while highly successful, well-managed hospitals have labor compensation ratios at or below 40 per cent. And although hospitals long have been attempting to make improvements in staffing efficiencies, persistently high labor ratios hovering above 50 percent indicate more can and should be done.

That “more” doesn’t require heavy lifting or heavy-handed reductions in force. But it does require a more weighted approach to parsing available overtime, agency use, skill-mix, shift assignment, and pay-rate data and more precisely matching departments’ actual labor costs to budgets.

Higher Staff Satisfaction = Savings

When it comes to containing labor costs, it’s impossible to separate the hard numbers and bottom-line results of data-driven decision-making from some of the attendant “softer” benefits. Improved workforce analytics not only promotes efficiencies that support the organization’s clinical, financial, and operational goals but also contributes to enhanced employee satisfaction, engagement, and retention.

Obviously, having too few—or too many—nurses on the schedule can be costly for hospitals. But when nurses are floating, working double or extra shifts, taking charge duties, or working short-staffed, there’s an additional cost—lower morale that leads to turnover.

According to the 2013 National Healthcare & RN Retention Report published by NSI Nursing Solutions, Inc., the cost of nurse turnover can have a profound impact on already diminishing hospital margins. The report showed the average cost of turnover for a bedside RN ranges from $36,000 to $48,000. Scheduling was listed among the top five reasons most nursing employees voluntarily resign.

With more advanced labor analytics, however, nursing and finance leaders have the information they need to implement more efficient scheduling and staffing processes and better engage, protect, and manage their valuable nursing resources.
THE EVIDENCE IS CLEAR: WORKFORCE ANALYTICS KEY TO CONTROLLING LABOR COSTS

Premium Pay Is a Prime Example: Optimizing the number of worked and paid hours in relation to the units of service produced—and controlling the cost of those hours—seems to elude many healthcare organizations. In a typical scenario, the hospital has too many nurses assigned to one area, too few in another, so it falls back on paying premium dollars for extra part-time or agency labor. It’s a costly move in more ways than one. According to a Labor Management Institute (LMI) analysis, in addition to drastically elevating labor expenditures, overtime above five per cent of total worked hours per pay period is associated with increased medical errors and patient falls.

Not surprisingly then, one of the best opportunities for performance improvement and cost reduction centers on a hospital’s premium pay decisions. Significant savings can be found simply by determining how much overtime is being spent, where, and by whom at the job code and individual employee levels.

One critical analysis is determining Overtime Actual to Budget Biweekly by calculating two key ratios. The first is Efficiency Variance—essentially the hours per unit of services actually used compared to the hours per unit of services budgeted for the overtime earning code. The second is Rate Variance—the dollars per unit of services actually spent compared to the budgeted units of services.

Simply reporting that labor costs exceeded budget during a specific pay period and calculating the gross dollar variance isn’t enough to identify the underlying cause of a problem or take action to remedy it. Managers need to clearly understand what portion of the total labor cost variance is due to efficiency—paying for more labor than expected—and what portion is related to rates—paying too much for the labor used.

Such detailed monitoring and analysis of overtime, agency use, skill-mix, and pay-rate decisions make it possible for hospital managers to better balance the mix of employed to supplemental staff, exert more cost-effective control over staffing in response to fluctuating census and patient acuity, and more accurately identify opportunities for efficiency improvement.

Speed Is of the Essence: But optimum efficiency as an outcome of evidence-based decision-making also depends on something equally as critical as accurate information and relevant metrics: speed. Managers need access to the data the moment it is available. And they need to perform timely analysis—not two weeks or a month later—that matches departments’ actual labor costs to budgets.

Hospitals that can calculate total overtime (or any other pay line) by the highest to lowest dollar (or hours) at the department and individual levels, trend actual versus budgeted labor expenses, and then sort and report the data instantly after the hospital’s biweekly labor data becomes available have a tremendous advantage.

Real-time labor metrics and analyses enable the responsible directors and front-line managers to adjust their assumptions based on current business realities, more accurately forecast staffing needs based on projected volumes, spot and fix emerging problems, and make rapid modifications that quickly bring labor expenditures in line with actual volumes and staffing goals.
THE EVIDENCE IS CLEAR: WORKFORCE ANALYTICS KEY TO CONTROLLING LABOR COSTS

Moving from Analysis to Action

Even as healthcare leaders begin to understand more clearly that big labor data has the potential to help them achieve substantial cost-cutting objectives, they continue to struggle with setting data strategy, navigating the different tools and options available, and turning the potential of labor analytics into practical application and measurable results.

Hospitals need to learn how to use key labor metrics and timely analytics—rather than from-the-hip decisions on overtime and shift assignments or reactive budget-cutting tactics—to guide staffing decisions and more cost-effectively manage and leverage the workforce. Identifying and analyzing specific pain points—such as excessive premium pay—is just the beginning. Hospital finance leaders must make sure the information they’ve gleaned from their repositories of data is supported, reported, and acted on.

At Healthcare Insights, LLC (HCI), we’ve developed a six-step, data-focused, action plan for improving labor productivity that every hospital can implement.

**Step 1: Measure what matters.** Determine the specific performance indicators that the organization needs to monitor, measure, and manage. These will vary from hospital to hospital depending on factors from the range of services offered to the composition of the workforce and the size of the organization.

**Step 2: Crunch the numbers.** Calculate an optimum labor compensation ratio and productivity standards for departments and job codes. Determine which departmental staffing plans are being used correctly and which need adjustment. Trend actual versus budgeted labor expenses at the department/division/organization level for regular, overtime, and other pay lines to determine reasonable objectives.

**Step 3: Set and share goals.** Establish clear objectives around the key indicators and standards and communicate those goals to everyone responsible for maintaining and developing budgets—including directors and floor managers, not just senior leadership or financial executives. These are the people responsible for doing the actual work, so they are the ones who must take action. Key data about labor efficiencies must be accessible and understandable to those in the trenches, or all that intelligence is worthless.

**Step 4: Enable success.** Make sure daily decision-makers have the appropriate tools—and the training and comfort level—they need to track key labor metrics frequently and drill down on operating reports.

Hospitals that opt for a commercially available software solution to facilitate financial management, data analysis, and decision-making should select a tool capable of fully integrating large volumes of data into a single, easy-to-understand language that non-financial decision-makers can understand and act on.

INSIGHTS® Case Study: Putting Analysis to Work

Edward Hospital & Health Services—an integrated health system in suburban Chicago—faced a critical need to more effectively manage its workforce and labor costs. But its ability to control labor expenses was limited by the way captured data was retrieved and assessed. The hospital found it difficult to draw insightful conclusions beyond the macro departmental level or make critical decisions about workforce allocations. Without deeper data, fast and clear analysis, and straightforward reporting, they couldn’t uncover costly root issues or take corrective action.

When they installed INSIGHTS, HCI’s financial management and decision-support software solution, it brought together micro-level, system-wide data related to labor, automated data analysis, and provided more effective reporting.

With INSIGHTS, extracting productivity data was accelerated (only two hours per pay period), facilitating immediate analysis and the rapid delivery of automatic alerts to the appropriate managers on overtime, use of agency personnel, and distribution of differential pay. Departmental managers could review the details with a single click and quickly respond.

Edward also was able to graph key labor indicators and give managers clearer visibility into metrics, like paid hours per unit, top overtime-earning employees, and overtime compared to patient volume. Managers could isolate costly workforce utilization issues—ranging from under-staffing in the housekeeping department to misaligned nursing schedules in the emergency department. And by more accurately forecasting staffing needs compared with projected volumes, they were able to optimize the number of worked and paid hours in relation to the units of service produced and maximize labor spend.
makers can immediately use to assess and improve productivity. Since any tool or technology is only effective if it is used, the chosen solution should feature a familiar design, user-friendly interface, and point-and-click functionality that encourages wide adoption and facilitates mastery even for those who don’t have an advanced degree in programming.

Step 5: Monitor results daily. This is one of the best methods for controlling labor expenses. Cost-saving initiatives such as flexing staff according to volume, un-scheduling unnecessary hours, and optimizing premium pay require more frequent reporting. If department managers are only reviewing current performance levels monthly or quarterly, they are not gaining the benefit of real-time results and the organization is not realizing all the savings it could.

Step 6: Hold people accountable. Put a system in place to alert directors and managers when they deviate from budget or goals. Then give them the data, analytic tools, and drill-down capabilities they need to identify and investigate labor variances independently and take quick corrective action.

Conclusion

As the “pay for outcomes” model shifts the focus on healthcare delivery away from the number of patients seen, tests ordered, or procedures performed toward the delivery of real value, hospital finance leaders are all too aware of the direct impact that efficient workforce management has on the organization’s ability to both deliver safe care and a sound bottom line.

Lack of data to support decision-making isn’t the problem. Most hospitals are drowning in labor-related information. Nor are hospital leaders unaware or unconcerned about the heightened importance of making sound decisions based on accurate data, relevant analysis, and fundamental principles of finance.

What’s missing is the ability to fully integrate large volumes of data—resource utilization, financial information, and costs down to the department and individual position levels—into a unified, easy-to-use data source that enables analysis, enhances accountability, and empowers decision-makers to improve performance.

While many of the financial challenges that healthcare organizations face today are out of their direct control, hospital leaders can take simple steps to exert control over one of the most significant cost centers: labor. Those that implement a data-driven action plan and acquire the right tools to do the job understand that working smarter not harder puts them in the best position to increase workforce capacity and productivity, assure both patient and employee satisfaction, and deliver cost-effective, high-value care.