HealthCatalyst®

Data-Driven Labor Management Delivers Financial and Operational Improvements

HAWAI'I PACIFIC HEALTH | KAPI'OLANI PALI MOMI STRAUB WILCOX

HEALTHCARE ORGANIZATION

Integrated Delivery System

PRODUCTS

- Health Catalyst® Data Operating System (DOS™) Platform
- PowerLabor™ application

SERVICES

- Professional Services

EXECUTIVE SUMMARY

Managing and retaining a talented workforce represents approximately 60 percent of hospital costs. In a rapidly evolving healthcare environment, hospitals and health systems are under tremendous pressure to improve efficiency and reduce healthcare costs, making it critical to accurately monitor and adjust labor resources.

In an effort to improve staffing efficiency, Hawai'i Pacific Health (HPH) sought to realign its staffing practices to better manage and predict its labor needs. Although the health system had a culture of flexing staffing to fit volume, it based staffing decisions on latent, retrospective data, resulting in less accurate planning than it desired. Utilizing its data platform, HPH was able to forecast its workforce needs and effectively manage staff schedules—two changes that led to significant cost savings:

- $2.2 million savings in 16 months, while maintaining high quality and positive clinical outcomes.

SIGNIFICANT HEALTHCARE LABOR MANAGEMENT COSTS CHALLENGE HEALTH SYSTEMS

As hospitals and health systems face tighter margins, reduced cash flow, and increased competition, they are under immense pressure to improve efficiency and reduce costs. One of the major drivers of healthcare operating expenses is labor management, accounting for approximately 60 percent of hospital costs.[1]

The demand for nurses, clinicians, and healthcare-support professionals is projected to increase along with the aging population, creating labor shortages that can drive up wages and lead to the increased use of contract workers and staffing agencies.[2] The problem is further complicated when patient volumes are lower or higher than expected and place a strain on the budget.

> "We use data to drive improvement, and we saw opportunities in labor management to improve our performance. We wanted to be nimbler and rely on real-time data versus retrospective data to make decisions. We've established a culture that empowers everyone to be good stewards of our resources, and our management embraces tools that help them do that."

Art Gladstone, RN, MBA, FACHE
Chief Executive Officer
Straub Medical Center and
Pali Momi Medical Center
Chief Nursing Officer
Hawai'i Pacific Health

Managing labor costs while meeting the demands for ensuring adequate and qualified staff is a top concern for healthcare leaders who recognize that tight management of labor utilization is essential to maintaining financial health. Successfully managing labor costs requires a system that can track and benchmark labor expenses.[3] Effective healthcare labor management requires the right balance between quality care, safety, patient and employee satisfaction, and fiscal responsibility.

HPH is one of the largest health care providers in Hawaii with four major medical centers and over 70 locations statewide. The provider's mission is to create a healthier Hawaii through community outreach beyond the walls of its facilities as well as investments in research, education, training, and care for the underserved in the community.

DISPARATE, RETROSPECTIVE DATA LIMITS VISIBILITY AND ACTIONABLE INSIGHTS

Managing labor costs can be a daunting challenge, and it is often difficult to know where to start. Like many health systems, HPH periodically experienced decreased inpatient volumes and sought to realign its staffing practices to better manage and predict labor needs.

To optimize its resource management, HPH needed to reduce unnecessary costs while maintaining high-quality care and patient and employee satisfaction. Although the organization had a culture of flexing staffing to fit volume, it based staffing decisions on latent, retrospective data, resulting in less accurate planning than it desired.

Further complicating the issue, the organization's labor management data systems were not integrated. Fragmented and siloed data made it difficult to identify trends and pinpoint areas needing improvement. The definition of volume statistics varied across the system, which led to an inability to compare, isolate, and intervene in potential problem areas. Collecting and delivering data from disparate sources and distributing retrospective reports to leaders required time-consuming manual processes, creating a time-lag for managers needing critical information for accurate staffing and budget planning.

Leaders then had to review and reconcile multiple, differing reports to understand their labor utilization. Since the reports were based on payroll data that was weeks old, leaders were forced to manage labor costs by looking in the rearview mirror. The health system sought to improve its labor management, but it lacked the ability to enable labor analysis and interventions on a systemwide level.

REAL-TIME, ON-DEMAND ANALYTICS ENABLES DATA-DRIVEN LABOR MANAGEMENT

Analysis pinpoints opportunities

To gain insight into its performance, HPH partnered with Health Catalyst to conduct an opportunity analysis. The data uncovered opportunities to reduce costs in healthcare labor management and identified the top ten areas across four hospitals with the biggest potential to improve. To tackle the challenge, HPH leveraged the Health Catalyst® Data Operating System (DOS™) and a robust set of analytics applications—including PowerLabor™, an analytics application that helps managers facilitate more efficient labor force utilization by understanding basic operation and staffing indicators.

Using data from its data platform (including hours, volume, and budget data from four different data systems) HPH was able to access, for the first time, detailed information about its labor management practices in one place. Leaders can use PowerLabor to visualize labor management and understand productivity and identify hours detail versus the budget and full-time equivalent (FTE) utilization compared to budgeted FTE.

The organization assembled a meaningful representation of labor utilization with an easy-to-use interface to explore various dimensions of labor productivity, including staffing budget variance, the variance between actual and budgeted pay, and unnecessary variation in labor metrics.

> It is important to listen to leaders. We sat down with each leader and drilled into their department's data to validate that the data was clean and accurate.

Emiline LaWall, PhD
Project Manager
Information Technology
Hawai'i Pacific Health

HPH no longer needed manual reports and could base on-demand data on daily census data, rather than two-week-old payroll data. Using new insights from the analytics application, HPH determined that its staffing ratios were close to its target numbers and that it could make a significant reduction in cost by tightening its processes and making small adjustments to staffing ratios, rather than overhauling its staffing approach. Even though HPH identified sizeable opportunities to save money, the changes necessary to achieve those savings were realistic and attainable.

Engagement sets the stage for success

Leveraging its culture of financial transparency, the health system engaged leaders from all departments at the start of the project. HPH listened to managers, leaders, and clinicians; validated the data; and addressed the underlying variation before implementing changes. The collaborative approach facilitated widespread support and adoption of the processes and tools as they were rolled out.

First, HPH conducted a pilot to evaluate the use of the analytics application and discover what widespread adoption throughout the system would require. It quickly realized that there were many differing meanings and assumptions ascribed to volume statistics and that data were not consistent.

Members of the leadership understood that consistent, standard data was critical for success, so they met with leaders of the pilot areas, exploring ways the organization could better align and understand each cost center. At first glance, the problem looked like overstaffing, but after a deeper dive into the data, the leaders discovered the problem was more often an error in attribution.

Once the data was validated and scrubbed, HPH leadership used the numbers to set goals and identify savings based on the new model. They also provided purposeful training to employees, explained the "why" behind the changes, and offered individual coaching and follow-up with managers on an as-needed basis—with the goal to train employees how to use the tool effectively.

> "Our leaders used the application as an additional resource, not a stick. It was a tool in their toolbox helped them have effective conversations with their charge nurses and managers about what was happening on the units. It also helped them learn and grow and made them more accountable. It is now part of how they function and lead.

Gidget Ruscetta, MBA, BSN, FACHE
Chief Operating Officer
Pali Momi Medical Center

Because the organization already had a culture of flexing to volume, clinical and operational leaders understood their roles as stewards of finances and appreciated having an easily accessible tool with real-time, actionable data to support them in meeting their financial goals. Leaders finally had the ability to quickly understand what was happening in their departments related to staffing and then make data-driven, proactive decisions. The six-month pilot successfully demonstrated the value of data-driven healthcare labor management, and the organization decided to roll out the tool to the entire system.

Collaboration and innovation produce wins

HPH knew that labor management was more than reducing expenses—it was about optimizing resources and finding innovative and collaborative ways to meet its labor-management goals. Successfully improving labor management required collaboration, financial transparency, and accountability.

The organization has seen many examples of managers thinking outside the box to address labor needs and manage employees within the budget. For example, managers on a very busy medical unit strived to improve patient satisfaction while staying within their staffing limitations. Data demonstrated that the unit could still meet its staffing goals while adding one additional staff member for the first four hours of the shift—the busiest time—to help answer call lights and respond to patient needs. This innovative four-hour shift started to yield an increase in patient satisfaction scores.

As the census has rebounded, HPH uses the tool to inform strategies to accommodate unpredictable changes in volumes and explain variances:

- A unit that others in the organization perceived as overstaffed used the data to demonstrate the need to add an additional FTE.

- Another unit analyzed the amount of overtime and double-time employees were using and converted those high-expense dollars to regular hours by adding one staff member. In many cases, a re-allocation of positions improved staffing without adding additional costs.

- The emergency department (ED) had been working on different ways to manage its staffing, making incremental gains. Following respiratory therapy's example of using on-call staff, the ED manager decided to trial on-call staff to manage unpredictable volume variation. The small change helped the ED meet its goals, without compromising high-quality outcomes.

- The pharmacy department had experienced unexpected absences and turnover and noticed that it was over budget in training dollars. By drilling into the data, it was able to better design training and orientation to skill mix, eliminating unnecessary training costs.

Departments throughout HPH have reached across the aisles to support each other, and it's now commonplace for one department that might be slow to lend staff to a nursing unit to meet patient care needs, freeing up a registered nurse to safely care for a patient in another department.

HPH provided additional training for employees interested in providing one-on-one patient monitoring. They also trained the staff in housekeeping, transportation, and respiratory therapy to successfully and safely fulfill the patient monitoring role, when needed.

RESULTS

Using a data-driven approach to labor management, HPH now has detailed insight into operations, supporting the creation of interventions aimed to decrease expenses, while improving operational efficiency and satisfaction. The health system improved labor utilization across four pilot facilities in only six months—significantly reducing labor costs. Building on its initial success, the organization has rolled out the program across its entire system, resulting in substantial savings and operational efficiencies:

- $2.2 million savings in 16 months, while maintaining high-quality outcomes.

- With on-demand, real-time access to data, managers spend 15 minutes—instead of four hours—proactively managing operations, reducing the administrative burden on managers.

- The organization can now answer basic business questions (e.g., the number of FTEs in a given hospital department) in minutes rather than weeks, allowing managers to immediately identify budget errors, in terms of where people are assigned versus where they should be, before making decisions based on faulty data.

- Utilization of the application continues to grow with hundreds of employees using the tool daily to actively manage their resources.

WHAT'S NEXT

HPH is continuing to refine its capabilities to optimize and manage labor expenses and is in the process of incorporating labor dollars into its labor-management analytics, giving leaders detailed insight into the financial impact of their decisions. ◊

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3. Becker's Hospital Review. (2010). *8 ways to cut labor costs in your hospital.* Retrieved from https://www.beckershospitalreview.com/hospital-management-administration/8-ways-to-cut-labor-costs-in-your-hospital.html

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services to healthcare organizations, committed to being the catalyst for massive, measurable, data-informed healthcare improvement. Our customers leverage our cloud-based data platform—powered by data from more than 100 million patient records, and encompassing trillions of facts—as well as our analytics software and professional services expertise to make data-informed decisions and realize measurable clinical, financial, and operational improvements. We envision a future in which all healthcare decisions are data informed. Learn more at www.healthcatalyst.com.

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