ACHIEVING WORKFORCE SCALE THROUGH AN ENTERPRISE-WIDE STAFFING STRATEGY

How have organizations across the country financially and operationally optimized their enterprise-wide nurse workforce strategy?

Overview

Across the US, health systems are facing a reckoning on rising costs that accompanies a windfall of financial pressures. Top-line revenue is strained due to shifting payer class dynamics and decreased elective volumes brought on by the pandemic. To address revenue shortfalls, health systems must look to workforce expenditures to manage costs. Through enterprise-wide staffing, hospitals can better flex their existing RN workforce to more appropriately meet patient need and generate savings by reducing overtime expenses and agency nursing.

Landscape

In the coming decade, health systems and providers anticipate that their markets will continue to experience a decline in commercial coverage with the rise of Medicare enrollees. Amplifying these revenue shortcomings is the COVID-19 pandemic, which increased payer mix erosion and exposed the operational shortcomings of existing staff models. Consequently, revenue pressures will force hospitals to look more carefully at cost-controlling efforts to protect operating margins.

Cost containment strategies often start with labor expenditures since they account for roughly 60% of overall hospital costs. However, all too often RN workforce reductions are based on productivity measures, which has the unintended consequence of lowering quality of care and straining a workforce already experiencing burnout. A more strategic approach to cost control is to look across the entire enterprise when making staffing and patient placement decisions.

An Opportunity to Scale Workforce Capacity

For decades, health systems have struggled to ensure that nurse staffing models adequately meet the ebbs and flows of patient demand and acuity. This has resulted in higher labor spend, lost revenue and growing nurse burnout. Traditional nurse staffing models are often hospital- or unit-based, low-tech, decentralized, and reliant on an outdated census. These problems are a response to nonstandardized operational processes and disparate systems that require nurse managers to manually stitch together historical information to build their daily plan. As health systems continue to consolidate and technology improves, an untapped opportunity exists to address past challenges while fully scaling workforce and available resource capacity.

A mix of growth and consolidation across the industry from years of mergers and acquisitions has further accentuated the limitations of manual and siloed staffing systems. That said, health system size can provide an opportunity to achieve system scale. Using an enterprise-wide staffing approach, a hospital or nursing unit with high demand can request and gain manpower from a centralized staffing pool or other hospitals with available nurses. In addition to agile staffing capabilities, systems have an opportunity to decant patients from hospitals that are overcapacity to those with bed and staffing availability. Armed with a bird's eye view of the whole health system, the opportunity for both improved staff efficiency and increased patient revenue can span into millions of dollars in savings.

Quantifying the Opportunity

Table 1, which displays data from Vizient's Operational Data Base, highlights hospital performance on overtime and contract labor spend stratified by organization bed size. In this example, if a hospital with more than 200 beds shifted from the 75th to the 50th percentile in overall spend on contract labor and overtime salary expenses, it would yield $2.6 million in savings. For regionally based multihospital systems, looking at excess labor cost across the enterprise will highlight the potential return on investment (ROI) to support an enterprise-wide staffing strategy.

TABLE 1. TOTAL SPEND ON OVERTIME AND CONTRACT LABOR

OVERTIME SALARY EXPENSE	50TH PERCENTILE	75TH PERCENTILE	90TH PERCENTILE
Non–Major Teaching Facilities 0–100 Operating Beds	$328,996	$530,235	$998,447
Non–Major Teaching Facilities 101–200 Operating Beds	$662,665	$1,165,969	$1,712,395
Non–Major Teaching Facilities 201+ Operating Beds	$1,290,111	$2,261,209	$3,977,338
Major Teaching Facilities	$3,239,854	$5,297,883	$8,086,218
TOTAL CONTRACT LABOR DOLLARS	**50TH PERCENTILE**	**75TH PERCENTILE**	**90TH PERCENTILE**
Non–Major Teaching Facilities 0–100 Operating Beds	$23,524	$581,340	$1,406,048
Non–Major Teaching Facilities 101–200 Operating Beds	$159,805	$1,037,158	$1,977,510
Non–Major Teaching Facilities 201+ Operating Beds	$336,304	$1,934,334	$4,331,078
Major Teaching Facilities	$208,465	$2,644,873	$5,931,858

	TOTAL SPEND ON OVERTIME AND CONTRACT LABOR		
	50TH PERCENTILE	75TH PERCENTILE	90TH PERCENTILE
Non–Major Teaching Facilities 0–100 Operating Beds	$352,519	$1,111,575	$2,404,495
Non–Major Teaching Facilities 101–200 Operating Beds	$822,471	$2,203,127	$3,689,906
Non–Major Teaching Facilities 201+ Operating Beds	$1,626,415	$4,195,543	$8,308,417
Major Teaching Facilities	$3,448,319	$7,942,756	$14,018,075

Note: Certain data used in this study were supplied by International Business Machines Corporation. Any analysis, interpretation or conclusion based on these data is solely that of the authors, and not International Business Machines Corporation.

Determining a Strategic Fit

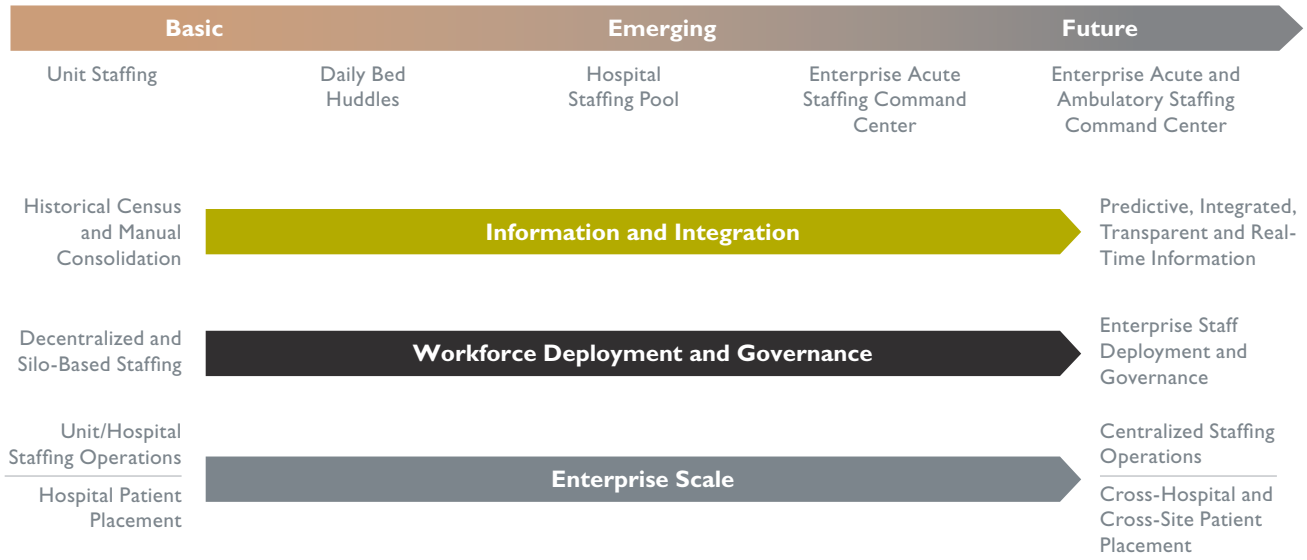
Organizations considering an enterprise-wide staffing strategy must first evaluate their market and health system to determine if this is the correct approach. Health systems best suited for this solution are those that have multiple hospitals located within a close geographic proximity. This enables nurses to be deployed across facilities without adding to commute time and supports appropriate patient transfers based on acuity. Enterprise-wide staffing models offer the benefit of care standardization, which can improve patient safety and clinical outcomes. Prior to implementation, nurse leaders can establish protocols and offer training to ensure clinical standards. In addition to a

regional layout, systems that see variation in capacity across facilities (eg, acute care capacity constraints, throughput bottlenecks at 1 or more hospitals and capacity at others) can justify command center investments. Finally, hospitals with high spend in agency nursing and overtime, high rates of turnover, and high variability in nurse productivity indicate opportunities to improve nurse staffing and deployment.

Continuum of Workforce Strategies

An evaluation of different workforce strategies can be considered along a spectrum of basic, emerging and future, as shown in Figure 1. Today most health systems are firmly rooted somewhere between the higher end of "basic" and the lower end of "emerging" workforce models along this continuum. However, health systems are beginning to shift toward more progressive strategies, such as developing enterprise-wide staffing centers. With an eye toward the future, Sg2 expects progressive systems to expand and centralize their system-wide staffing capabilities beyond hospital-based to include ambulatory staffing.

FIGURE 1. CONTINUUM OF WORKFORCE STRATEGIES



Strategy 1: Distribute Patient Demand Across the System

CASE STUDY | AdventHealth Orlando, FL

STRATEGIC OPPORTUNITY

Nurse leaders at AdventHealth, a 9-hospital system with 3,200 beds, realized past reactive and hospital-centric staffing practices would not meet system-wide challenges. Their solution was to develop a system-wide "mission control" command center to match patient demand to available capacity.

ACTIONS

- Partnered with GE Healthcare Partners to understand patient flow constraints, find opportunities to reengineer processes and develop real-time analytics
- Defined workflows and transfer documentation to match patient type and acuity to the appropriate care setting

- Developed a 24/7 centralized facility staffed by a mission control supervisor who oversees the operations; care managers who perform clinical reviews; and management, performance improvement and analytics teams who ensure a smooth patient flow

RESULTS

- The turned-away rate decreased from 17 patients per month in 2018 to 2 patients per month in the first 6 months of 2019.
- The number of patient transfers from hospitals with limited bed capacity to those with availability doubled between Q1 2018 and Q1 2019.
- Bed placement time from the ED order to bed available decreased from 91 to 30 minutes.

Source: Roth M. AdventHealth uses AI to balance capacity issues among 9 hospitals. HealthLeaders. October 15, 2019.

Strategy 2: Assign Float Pool Staff Across the Hospital

CASE STUDY | MercyOne Des Moines, IA

STRATEGIC OPPORTUNITY

MercyOne Des Moines Medical Center faced a challenge common to many hospitals. Staffing needs and real-time staffing decisions were made without access to accurate and timely information. The lack of transparency created staffing silos and nurse shortages, and there was no system-wide plan to proactively manage staffing. System leadership realized a system-wide staffing approach was needed.

ACTIONS

- Developed and deployed the Hospital IQ workforce system to help nursing leadership forecast and track census and staffing and deploy resource pool nurses in real time
- Assigned new grads to telemetry and medical-surgical units; nurses with more than 2 years of experience could be deployed to higher-acuity units.
- Operated the staffing office for 12 hours a day, with 1 staffing coordinator planning the next 12 (or more) hours and deploying staff in real time in concert with charge nurses, eliminating the need for daily bed huddles
- Identified patients eligible for transfer from the Des Moines hospital to critical access hospitals (CAH) via the centralized system, freeing up higher-acuity beds

RESULTS

- Charge nurses and unit directors had increased availability for delivering direct patient care.
- Leveraging the system float pool decreased core nursing staff transfers between units, resulting in improved job satisfaction.
- The hospital reduced its need for agency nursing and was able to provide an accurate overview of the overall staffing resources available to meet the needs of the 10% to 15% census increase related to the pandemic.
- Trust in CAH facilities strengthened and integration increased, allowing critical access hospitals to get patients back into the community.

NEXT STEP

Based on the success of the staffing strategy at its Des Moines hospital, MercyOne is planning expansion to other hospitals across the system.

Source: Sg2 Interview With MercyOne, October 2020.

Strategy 3: Allocate Nursing Staff Across the Health System

CASE STUDY | Multihospital Health System

STRATEGIC OPPORTUNITY

A multihospital system in the Southwest was burdened by over $25 million in contract labor costs in 2018. Each of its hospitals managed staff, prompting leadership to develop a strategy to scale workforce across the system.

ACTIONS

- Implemented centralized management of nurse staffing across more than 2 dozen hospitals and a medical group using an acuity-based staffing model
- Created a centralized staffing office to hire and manage the centralized staffing pool, monitor census, and deploy staffing
- Developed system-wide predictive analytics and a dashboard that automatically accumulates census, staffing and acuity to highlight gaps and placement opportunities
- Required hospital CNOs to report to a system CNO to ensure alignment and strategic execution
- Allowed for redeployment of unit staff to other units/hospitals during low census
- In addition to nurse staffing, moved operation of the transfer center, bed control, nurse residency program and behavioral health crisis line to the centralized staffing office

RESULTS

- The system saw $11 million in savings in the first year.
- Centralized management staffs over 900 nurses daily.
- The centralized staffing office strategy was expanded to manage several other employee groups.
- Employee satisfaction improved with implementation of centralized management.

Source: Sg2 Analysis, 2019.

The New Way of Scheduling

Recognizing the need to both maximize investment in human capital and safeguard against rising labor costs, progressive organizations have introduced technology-based systems to predict staffing needs in a more transparent and proactive manner. The development of certain software programs in recent years poses the potential to revolutionize how hospitals aggregate and capitalize on newfound information. These new software options are data capture systems that can overlay existing IT systems to best integrate information across differing legacy systems. With greater connectivity across IT systems, administrators can remove longstanding barriers that once prevented the implementation of system-wide staffing solutions.

The introduction of software and intelligently mined data sources enable informed, agile decision making around staffing. Health systems that leverage software solutions have gained real-time data and capabilities to anticipate potential bottlenecks and future spikes in census. By harnessing real-time data, administrators can make informed decisions that will reduce mismatches between staff supply and bed demand along with overtime and per diem labor charges. In the future, advancements in artificial intelligence (AI) will help organizations seamlessly predict future staffing needs based on past trends and current utilization.

The Role of Nursing Leadership

Nursing leaders, from c-suite to unit/shift managers, play a critical role in the strategic planning, clinical development and monitored execution of enterprise-wide staffing strategies. From garnering executive-level buy-in to promoting change at the unit level for frontline staff, the success of these strategies hinges on the ability of nursing leaders to spearhead the transformation process.

For any workforce strategy, technology is but a supporting tool. Nursing leaders and their teams must drive change by first scanning the care continuum to identify inefficiencies, aligning clinical protocols and planning for enhanced workflows before investing in tech solutions. Prior to investment, consider the following steps:

- **Seek opportunities to pilot AI or cloud-based computing** that support real-time deployment and forecasting of resources across the continuum. Prioritize partnerships that are aligned with your enterprise-level strategy and have demonstrated impact.
- **Collaborate with early-stage software vendors to codevelop capabilities** that are specifically designed to meet the staffing or resource deployment challenges your organization is facing. Consider the workflows and clinical protocols of your organization and think about standardizing them before investing in the supporting technology.

KEY METRICS

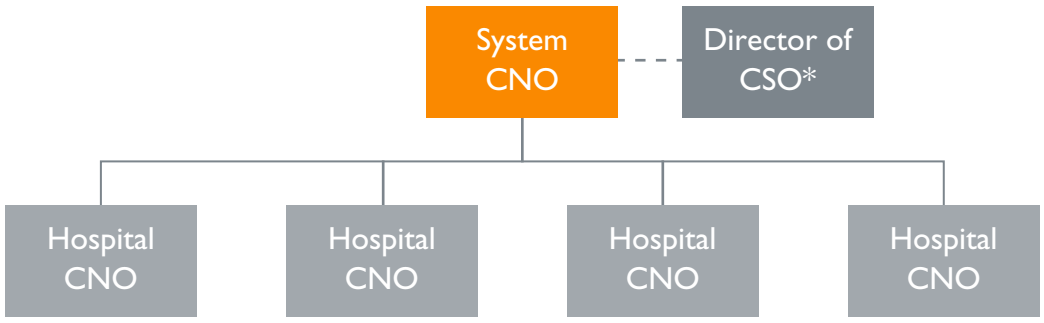
- Productivity (ratios, average daily census, actual census: productive vs unproductive time)
- Cost-adjusted case mix index
- Hospital satisfaction with float center staffing
- Float center staff engagement scores
- Number of leaves of absence per service line and number of hours provided
- Quarterly reduction in traveler's usage
- New hire/turnover rate (full time, part time and PRN [as needed] are calculated separately and combined)
- Premium pay reduction
- Float pool fill rate

Governance Structure

The success of leadership hinges on a thoughtful governance structure that promotes alignment across the health system. To reap the benefits of alignment, leaders must work to first establish infrastructural and standardized components such as policies, procedures, staff competencies and technology across the system.

Figure 2 illustrates a sample governance structure in which shared leadership, clearly delineated roles and direct lines of communication equip a team to succeed in flexing its nursing staff to achieve clinical and operational integration across the health system. While this is one example of a governance structure that can support organizational changes, note that there are likely others.

FIGURE 2. SAMPLE GOVERNANCE STRUCTURE: CENTRALIZED NURSE STAFFING



*Central staffing office terminology interchangeable with resource float pool. CSO = central staffing office.

Part of the governance structure is the understanding that changes to staffing models can empower professional development opportunities. Under these new models, multiple generations of nurses can obtain career development and professional mobility. For newer nurses, there is the chance to float and gain clinical exposure in different care settings and service lines. Among new nurse graduates, who largely are part of Generation Z or are millennials, this model can meet their need for greater variety of work experience, which also can help with retention. For more experienced nurses, there is the opportunity to flex ICU nurses across multiple units and expand the breadth of their clinical capabilities.

Next Steps: Executing a Successful Strategy

To develop a successful enterprise staffing model, we recommend the following 5 critical steps. While this list is not exhaustive, it provides a framework to guide health systems along the path toward an operational enterprise-wide staffing system.

☑ Assess Financial Opportunities

- Identify capacity constraints and patient flow bottlenecks leading to excess LOS.
- Quantify annual spend on agency and overtime labor.
- Quantify the incremental investment in central pool staff to cover future enterprise staffing gaps.
- Develop a strategic ROI based on cost savings, incremental revenue generation and projected investment.

☑ Build Operational Components

- Construct an internal governance structure and aligned incentives to enable staffing changes.
- Build or enhance existing nurse float pool structure to support the entire enterprise.
- Deploy an enterprise command center staffed by a management team to effectively predict, adjust and deploy staffing and transfer patients in real time.

☑ Develop Metrics

- Set metrics around productivity, cost reduction targets and nurse staff engagement.
- Create quarterly reports that track and provide transparent updates to critical stakeholders.

☑ Advance Career Development

- Leverage the new staffing model as an opportunity to allow for advancement opportunities.
- As a recruitment tool, hire directly into the staffing office and develop new graduates in a nurse residency program.

☑ Adopt System-Wide

- Begin implementation at one hospital and scale once operational performance is achieved.
- Once acute care nursing staff is deployed across the enterprise, consider optimization across additional sites, units and staffing resources.

Sources: LaPointe J. Hospitals target labor costs, layoffs to reduce healthcare costs. RevCycle Intelligence. March 2, 2018; American Hospital Association. Hospitals and Health Systems Face Unprecedented Financial Pressures Due to COVID-19. May 2020; NSI Nursing Solutions, Inc. *2020 NSI National Health Care Retention and RN Staffing Report.* March 2020; Kinney TE et al. 4 crucial health system responses to the revenue impact of COVID-19. Healthcare Financial Management Association. September 2020; KPMG. *KPMG's 2017 US Hospital Nursing Labor Costs Study.* 2017; Adkins A. Millennials: The job-hopping generation. Gallup. Accessed October 2020; Vizient. The Large System Nurse Executives Network System Resource Pool Insights. August 2020; Vizient. *Clinical Workforce Well-being Playbook: Leading Through the COVID-19 Crisis and Beyond.* April 2020.