The Road to Care Excellence is Paved with Data-Driven Decisions

Avenues for changing outdated, subjective staffing practices
HOSPITALS AND HEALTH SYSTEMS ARE CHALLENGED TO SIMULTANEOUSLY DELIVER HIGH-QUALITY CARE AND LOWEST COST.

These mounting dual pressures are prompting hospitals to incorporate data into their workforce practices for smarter staffing decisions that achieve quality and financial demands.

As outcomes and the patient experience increasingly determine hospitals' reimbursement, the data used to drive workforce decisions grows in importance. Staffing decisions have ramifications for the organization at large, including financial, clinical and employee performance. In a survey of hospital and health system executives, respondents indicated a data-driven approach to staffing supports major organizational outcomes and performance indicators, such as staff productivity (86 percent), cost containment (85 percent) and patient outcomes (69 percent).

Although the majority of executives know data is critical to staffing, some are unclear on how best to obtain and integrate data into staffing processes. “Getting relevant data is tough,” said one hospital executive and vice president at a for-profit health system in the East. The director of nursing at a 460-bed hospital in the South said he’s seen data harvested manually, which was not a sustainable process. For these organizations, there’s a better, more effective way using technology.

Most hospitals already possess the data needed for informed staffing decisions. It’s in the EMR. Data-driven staffing solutions are the bridge between the data-packed EMR and staffing decisions. These solutions draw a comprehensive picture of patient care needs, acuity projections and patient flow. This means organizations can harness the large volumes of data they already have to match patients and caregivers in a way that optimizes outcomes and lowers costs.
DRIVING OUTCOMES WITH DYNAMIC STAFFING:
The data that executives know they need

Many health systems currently count on imprecise means to create staff schedules. Workforce decisions are made without objective data about levels of patient acuity, the care team’s experience and skill, and patient flow. Instead, hospitals depend on a notion that experienced nurses can sense the clinical environment. They also operate on the assumption that patient needs are relatively consistent, and they have no way to objectively account for intra-shift changes in patient needs and staffing.

With a changing outcome-based healthcare payment model and EMRs storing troves of information about patient needs, there is great reason to move from subjective staffing to workforce decisions based on evidence. It is time to leverage system data for better staffing decisions.

Hospital and health system executives in both financial and clinical departments know what data they need to support top organizational outcomes. Executives ranked data about patient acuity and staff skill level, expertise and credentials as nearly equal in terms of importance to quality of care. Data regarding patient admissions, discharges and transfers was also identified as a top influencer of quality and cost containment efforts.
Moving towards data-driven staffing

In a survey, conducted by Becker’s Hospital Review, 50 finance and 50 quality leaders of various hospitals and health systems were asked to give their opinions on impacts and obstacles of data-driven staffing. Here is a look at the general survey respondents breakdown.

Survey respondents currently using an automated solution for data-driven approach to staffing

- Yes, currently using: 38%
- No, but plan to implement in the next 18 months: 23%
- No, and no current plans to change in the next 18 months: 34%
- Unsure: 3%

Best description of how nurse staffing is done at the facilities today

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>33%</td>
<td>Varying degrees of staff &amp; patient data points used across the organization</td>
</tr>
<tr>
<td>23%</td>
<td>Many staff &amp; patient data points considered</td>
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<tr>
<td>16%</td>
<td>Some staff &amp; patient data points considered</td>
</tr>
<tr>
<td>13%</td>
<td>Little use of staff or patient data</td>
</tr>
<tr>
<td>12%</td>
<td>No use of staff or patient data, staffing is done manually</td>
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<tr>
<td>4%</td>
<td>Unsure</td>
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How do hospitals leverage that data to affect organizational outcomes?

Patient acuity

The majority of surveyed hospital executives said patient acuity data significantly impacts quality of patient care, more so than data for census and projected over-time. As an emergency department manager in the Midwest noted, “Recognition that a patient’s level of acuity is directly linked to the amount of care a patient requires, and thus the amount of time the nurse will spend with that patient, is exactly why acuity is a critical factor for appropriate staffing.”

Acuity-based staffing is easy to understand in theory. The concept has existed for years and is familiar to many in healthcare. Nonetheless, acuity-based staffing is not accurate without the right data points to provide the most meaningful insights. “Patient acuity data helps us move beyond our biased personal opinions and focus on reality,” said the CEO of a hospital in the Southwest.

Organizations need to ensure the quality of data is reliable. After all, data quality ultimately determines whether staff accepts and uses it. Patient acuity data must be consistently and accurately captured and available on a timely basis, said the vice president of patient care at a major academic health system in the Southwest. “The right data points have to be captured. When data points are someone’s opinion, reliability decreases significantly.”

By leveraging the EMR, hospitals are able to pull acuity data that is more objective, reliable and sophisticated than what was previously available through opinion-based scheduling and manual data collection. Armed with a clearer picture of patients’ needs, organizations can make smarter staffing decisions based on data, evidence and outcomes rather than assumption or outdated manual processes.

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Staff skill level/expertise/credentials

“Skill level and expertise have, in my opinion, the biggest impact on quality of care,” said the vice president of patient care at a major academic health system. The CNO at a major children’s hospital in the South agreed: “I believe the evidence shows us that a better skill mix and higher level of education improves patient outcomes significantly,” she said. “This data is something we review often at my organization.”

Approximately 80 percent of surveyed hospital leaders said staff skill level and competency has a high to very high impact on care quality. Yet, only 63 percent of executives said their organizations factor staff skill, experience and credential data when making staffing assignments.

Why don’t more executives factor skill and competency data when making staffing decisions to impact quality? Most executives said the difficulty is in obtaining the data about nurse skill and experience. A CNO said poor access to data and inability to turn that data into actionable information for workforce decision-making creates the gap. The president and COO at a hospital in the Midwest said it’s difficult to factor staff experience, credentials and skill sets in scheduling without the proper system in place.

Staff skill level and competency also have a great effect on staff productivity, according to executive respondents. Informed staffing assignments help drive nurse engagement and retention. In fact, the Joint Commission has noted that for hospitals to create organizational cultures of retention, they should set staffing levels based on nurse competency and skill mix relative to patient mix and acuity.

“If you do not have the expertise and staff experience, the turnover will be higher, causing the company to spend more money on orientation and training,” said the director of perioperative services at a hospital in the South. Seeing as it costs roughly $82,000 to replace a nurse, the savings of retention are indirect but substantial. That figure, cited in the Journal of Nursing Administration, accounts for the costs of the vacancy, orientation and training, the lowered productivity of a newly hired nurse, and advertising and recruiting.

There is a more reliable way for hospitals to obtain data about staff skill level and competency mix. Evidence-based staffing solutions help organizations improve patient outcomes and employee engagement and productivity by assigning the right caregiver to the right patient through equitable staffing assignments based on skill set, unit flow and continuity of care.
Admissions Discharges and Transfers (ADT)

Regardless of length of stay, every hospital inpatient must be admitted, transferred and discharged. These touch points carry a significant workload for nurses and care teams, particularly as hospitals increase their focus on patient satisfaction and care coordination.

With visibility to patient flow activity — actual, pending and expected — ADT data empowers hospitals to plan ahead and better manage patient throughput. It also gives care teams the ability to adjust staffing based on patients’ changing dynamics, patients’ departure from a unit, patient flow and the staffing assignments for current and upcoming shifts.

Most executives (70 percent) recognize that ADT data has a significant effect on quality improvement. And when it comes to costs, ADT data is a powerful tool: 67 percent of executives said it has a high impact on workforce cost containment efforts. Despite their acknowledgment that ADT data affects the quality and cost of care, many organizations have yet to master this level of accuracy in staffing. Only 49 percent of executives said their hospitals consider ADT data when making staffing assignments.

The vice president of patient care at the major Southwest academic health system advised that organizations trying to gain efficiency and bolster outcomes should base staffing decisions on the most timely information available. Also, nurses should have resources to gain an accurate understanding of admits, discharges and transfers. “There is a gap between nursing and other areas of healthcare organizations that needs to be closed,” she said. “It will require all parties agreeing on the ultimate goal being high quality patient care — actually being patient-centric healthcare providers.”

Hospitals need the solutions that enable them to keep pace with the fluidity of patient flow and adjust their staffing with as much ease and reliability as possible. An integrated staffing solution that pulls in ADT and census data — allowing hospitals to adjust staffing every four hours throughout a coverage period — can help ensure optimal nurse-to-patient matching.

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Survey respondents believed a data-driven staffing initiative could impact:

- **Cost Containment**: 3% low impact, 85% high impact
- **Patient Outcomes**: 3% low impact, 69% high impact
- **Staff Satisfaction**: 9% low impact, 64% high impact
- **Patient Satisfaction**: 9% low impact, 61% high impact
- **Revenue**: 26% low impact, 42% high impact
For many organizations, the reality of data-driven staffing is not a question of budget or technology. It’s a matter of perception and changing traditional attitudes.

Interestingly, approximately 40 percent of finance and quality-focused executives said staff attitudes toward data-driven staffing are the greatest obstacle to implementing this strategy at their organizations. In fact, attitudes trumped technology and dollars. Financial executives saw attitudes as a greater obstacle than budget restrictions, which were ranked as the smallest obstacle. Attitudes were even more concerning to executives than technology in terms of what holds back data-driven staffing.

Executives encounter resistance to data for several reasons. First, many hospitals have grown comfortable with the status quo. Change to traditional workforce staffing methodologies are met with scrutiny and doubt, even though the traditional opinion-based staffing measures may no longer be effective. “The attitude most worrisome to me is the insistence on utilizing the ‘staffing factors we’ve always used,’ as if that has any relevance to whether staffing is actually appropriate or not,” said the ED manager at a 300-hospital in the Midwest.

Speaking of traditional, utilizing matrixes and nurse-to-patient ratios remain the most familiar staffing method for most hospitals. In some organizations, ratios are used out of habit and familiarity — not so much for their ability to paint a clear picture of patient and staffing needs. The vice president of patient care services and CNO at a children’s hospital in the South said she sees nurses getting caught up in ratios. She made an effort to reframe conversations and decisions about staffing, but encountered resistance from nurses. “I try to talk in hours of care needed for our patients, not ratios,” she said. “This has gained some momentum, but culturally, is very difficult to sell.”
Finally, many healthcare professionals noted a cultural challenge in their organizations, with financial executives viewing staffing differently from clinical and nursing executives. Eighty-five percent of executive respondents said data-driven staffing has a significant impact on cost containment efforts. However, there can be a disconnect between financial and clinical leaders about how the data should be leveraged for cost containment.

One registered nurse at a hospital in the South said an FTE is an FTE in her facility, regardless of whether it is a nurse or a housekeeper. “Our CFO is often resistant to allow any changes to nurse staffing, as we already cost so much.” Another director of perioperative services noted the current administration at her hospital in the South uses nurse-to-patient ratios regardless of patients’ acuity. “Our system is driven by the CFO instead of nursing,” she said.

A reliable data-driven staffing solution serves as a bridge between financial and clinical decision makers, enabling staffing that is both cost effective and clinically sound. Tools that provide objective data and depict patient needs on a timely basis can reinforce CNOs, CFOs and care teams for a healthier partnership.

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Largest obstacle to data-driven staffing in organizations

- 41% Attitudes
- 32% Budget
- 26% Technology
EVALUATING DATA-DRIVEN STAFFING SOLUTIONS

When describing the ideal staffing solution, executives cited the importance of a platform that drives actionable data reliably and in a timely manner. “You need to be able to predict staffing, not just react to it,” as one clinical executive said. “Predicting and executing a staffing plan depends on an analytic platform that can feed real-time data in advance of staffing needs.” The good news is hospitals and health systems already possess this very data. Now they just need a solution to transform it to actionable information that is infused into staffing decisions.

The most effective data-driven solutions for workforce management inform decisions about current and upcoming shifts by interfacing with the EMR to obtain information about patient acuity with information about staff skill level and ADT data and apply intelligence to enable decisions based on real-time patient needs. This empowers nurse managers to manage staffing with greater ease and accuracy and support care quality, cost containment efforts, nurse satisfaction and staff productivity.

Ultimately, organizations that leverage data for staffing and scheduling decisions are better positioned to cost-effectively create excellence in outcomes. For example, one integrated health system in the Midwest relies on multiple data points to inform staffing decisions, including points on average patient acuity, ADT, staff composition and census.

“We use data, data, data,” said the CNO of the system. “Information from our EMR is fed into our acuity system every two hours and staffing is adjusted every four hours based upon this data. Managers monitor nurse-patient assignments routinely as well as staffing, multiple times a day, and make adjustments.”

Patient care delivery is a complex, dynamic process and requires the integration of multiple data points to inform optimal clinical and financial decisions that keep healthcare organizations moving forward. The future is data-driven staffing systems that integrate and match patient acuity, skill sets of the workforce and ADT information effectively to create the best outcomes.
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