

FEATURE SPOTLIGHT

# Staffing Success at OHSU: Optimized OR Team Deployment and 25+ Hours Weekly Time Reclaimed

## Key Results:

**25 Hrs/Wk**

Saved in staffing coordination, redirected to patient care

**5 Minutes**

Average reduction in case duration

**30%**

Improvement in staff consistency



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## Introduction

Oregon Health and Science University (OHSU) is Oregon's only academic health center and a nationally recognized leader for patient care, education, and research. OHSU operates 53 operating rooms across 4 surgical sites, manages 576 licensed beds, and performs approximately 38,000-39,000 surgical cases annually. As one of only two Level 1 trauma centers in Oregon, OHSU provides critical care services throughout the region.

OHSU's perioperative leadership team, including service line coordinators (SLCs), charge nurses, and nurse managers, faced significant challenges in creating efficient and effective OR staff assignments. The process was highly manual, time-consuming, and reactive, making it difficult to optimize staff utilization and provide consistent care. With growing surgical volumes, financial pressures from a reduction of 500 FTEs, and complex service line variations, OHSU needed a strategic transformation in their approach to staffing.

The perioperative leadership recognized that to rebuild workforce morale while handling growing volumes, they needed to change not just workflows but their entire mindset around staffing. This case study examines how OHSU implemented LeanTaaS' AI-powered **iQueue for Operating Rooms** solution to transform their staffing processes, resulting in significant time savings, improved staff satisfaction, and enhanced patient care.

# Staffing Assignment Challenges at OHSU

## A Manual, Time-Consuming Process

Prior to implementing iQueue's Staffing Daily Roster, OHSU's staffing process was highly manual and reactive. The team spent approximately 45 hours each week creating schedules using paper-based tools, pulling data from Kronos\*, and reworking assignments each morning. This process was unsustainable and prevented staff from focusing on more critical aspects of patient care.

The staffing workflow entailed multiple manual steps:

1. Creating paper rosters of available staff based on posted schedules
2. Manually reviewing the next day's surgical schedule in the EHR
3. Assessing staff availability and qualifications based on limited information
4. Making staffing assignments and documenting them on paper
5. Transferring assignments from paper into the EHR system
6. Communicating assignments to staff through multiple channels

This extensive process involved time-consuming double data entry, delays in completing assignments, and extra manual work required to communicate staff assignments.

## Lack of Visibility into Staff Capabilities

OHSU's leadership had no real visibility into who was assigned to which room or what staff members were capable of handling. As Dio Sumagaysay, RN, MS, Vice President of Perioperative and Multispecialty Procedural Services, described it, "Our coordinators were flying blind."

The team regularly received feedback from staff saying they were not trained for the cases they were assigned to, creating frustration and safety concerns. With more complex cases moving to OHSU's main site, this complexity only grew. The organization was saturated with volume, and service line variations required better planning and support mechanisms.

Without central visibility into staff experience, coordinators relied heavily on institutional knowledge or had to ask staff directly about their experience with certain procedures. For unfamiliar staff or floating staff from other facilities, this created additional challenges and inefficiencies. The organization maintained spreadsheets with staff competencies, but these were often outdated or lacked the granular information needed for optimal assignments.

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# Staff Assignment Challenges (cont'd)

## Financial and Operational Pressures

OHSU was operating under significant fiscal strain, having undergone a major reduction in force of approximately 500 FTEs. This created serious financial pressure and forced leadership to rethink operational approaches. The combination of reduced staffing, growing surgical volumes, and the need to rebuild workforce morale demanded a strategic transformation.

The organization needed to maximize what they had without burning out their people, which meant changing not just workflow but the entire mindset around staffing and resource utilization.

## About iQueue for Operating Rooms' Staffing Daily Roster

iQueue's Staffing Daily Roster module leverages historical OR data to forecast future room utilization, identify case-specific staffing needs, and highlight staffing gaps or variances for upcoming days. This allows perioperative leaders to align staff to demand proactively to ensure smooth operations.

The Staffing Daily Roster tool supports efficient and informed staff OR assignments by integrating staff case history into the assignment workflow, providing recommendations for optimal assignments, and proactively identifying training opportunities.

The module's Staff Forecast shows demand-based staffing needs for upcoming days and weeks, using AI predictions for future demand that consider case volume, surgeon booking patterns, likely case lengths, and unique staffing needs for specific cases. Perioperative leaders can use this information to make proactive decisions to align staff to demand efficiently and provide predictable, consistent workloads.

## OHSU's Staffing Assignment Solution

OHSU began partnering with LeanTaaS in 2018 on perioperative optimization using iQueue for Operating Rooms. When the AI-powered Staffing Daily Roster feature was introduced, OHSU quickly embraced it, recognizing the opportunity to further streamline OR staffing. This digital platform integrates all OR staffing into a real-time system that enables the team to both collect data about staffing decisions and implement that data immediately.



# OHSU's Staffing Assignment Solution (cont'd)

The solution replaced manual paper processes with a digital platform that reflected real-time changes and was accessible from anywhere in the facility. As Rayna Tuski, Director of Adult Perioperative Services, noted, "Having something that's digital really reflects the real-time changes that are happening, and it's accessible anywhere, so it's not just sitting on one charge nurse's desk where everyone has to go to that space to see the tool."

## Data-Driven Decision Making

The Staffing Daily Roster solution provided two key components:

1. **Staffing Forecast:** A visual tool showing staffing needs across the day, breaking down nurses and scrub techs with variance indicators showing when they were up or down, at-risk times, how many rooms were scheduled, and how many rooms were predicted to run. This allowed managers and charge nurses to easily identify risk points and make proactive staffing adjustments.
2. **Active Assignment Maker:** An end-user dashboard displaying staff names, shifts, roles, and the current schedule. The system allowed filtering by room or service line and provided a comprehensive history section showing each staff member's experience with specific case types and providers. This historical data grew dynamically over time, creating an increasingly valuable resource for making informed assignments.

## A Single Source of Truth

Perhaps most importantly, the solution created a single source of truth for staff experience and capabilities. Rather than relying on binders, separate Excel sheets, or simply asking staff if they were familiar with procedures, coordinators gained access to comprehensive historical data on each staff member's experience.

As one coordinator noted, "We now have instant access to comprehensive case histories for all our staff, including those floating from other hospitals. Having full visibility into case and experience details has accelerated our cross-training and orientation."

This visibility extended to all aspects of staffing, allowing coordinators to see who was capable of performing various roles, identify training gaps, and make strategic assignments that supported both immediate operational needs and long-term professional development goals.



# Impact & Results

## Operational Improvements

**25 Hrs/Wk**

Saved in staffing coordination, redirected to patient care

**5 Minutes**

Average reduction in case duration

**2 Minutes**

Saved in turnover time

The implementation of iQueue's Staffing Daily Roster has delivered significant operational efficiencies. The 25 hours per week saved in staffing processes represents time that charge nurses and service line coordinators can now redirect to patient care and other critical tasks. As Mr. Sumagaysay noted, "That's a high satisfaction, particularly for our charge nurses and service line coordinators, that they can save those 25 hours and really focus on the most complex work that really matters for them."

The improvements in case duration and turnover time translate to increased throughput and capacity without requiring additional resources or space. Having the right skill mix in each case has proven to improve time efficiency while maintaining or enhancing care quality.

## Empowered Staff & Improved Satisfaction

**30%**

Improvement in staffing consistency, from 50% to 80%

**Predictable**

data-driven assignments boost staff satisfaction

**Skill-matched**

teams enhance surgical performance

The solution has empowered staff by providing greater transparency and reducing the perception of favoritism in assignments. As Ms. Tuski explained, "It has removed this notion of preferential treatment, and that charge nurses are making assignments based on relationships or preferences towards specific individuals. Because it's all based on a log of data and skill set, staff have more trust in the process, they're more engaged, and they don't question assignments."

Surgeons have also noticed the difference, with multiple physicians commenting on the improved consistency and competency of their surgical teams. One surgeon noted, "I have had excellent surgical teams for the last few months. I did not know you are using the tool to create opportunities for cross-training – that is amazing."

The solution has accelerated cross-training and shortened orientation periods by making it easier to track experience and intentionally provide development opportunities. This has created a larger pool of cross-trained staff, enhancing scheduling flexibility and staff satisfaction.

The improvements in case duration and turnover time translate to increased throughput and capacity without requiring additional resources or space. Having the right skill mix in each case has proven to improve time efficiency while maintaining or enhancing care quality.

# Impact & Results (cont'd)

## Cultural Transformation

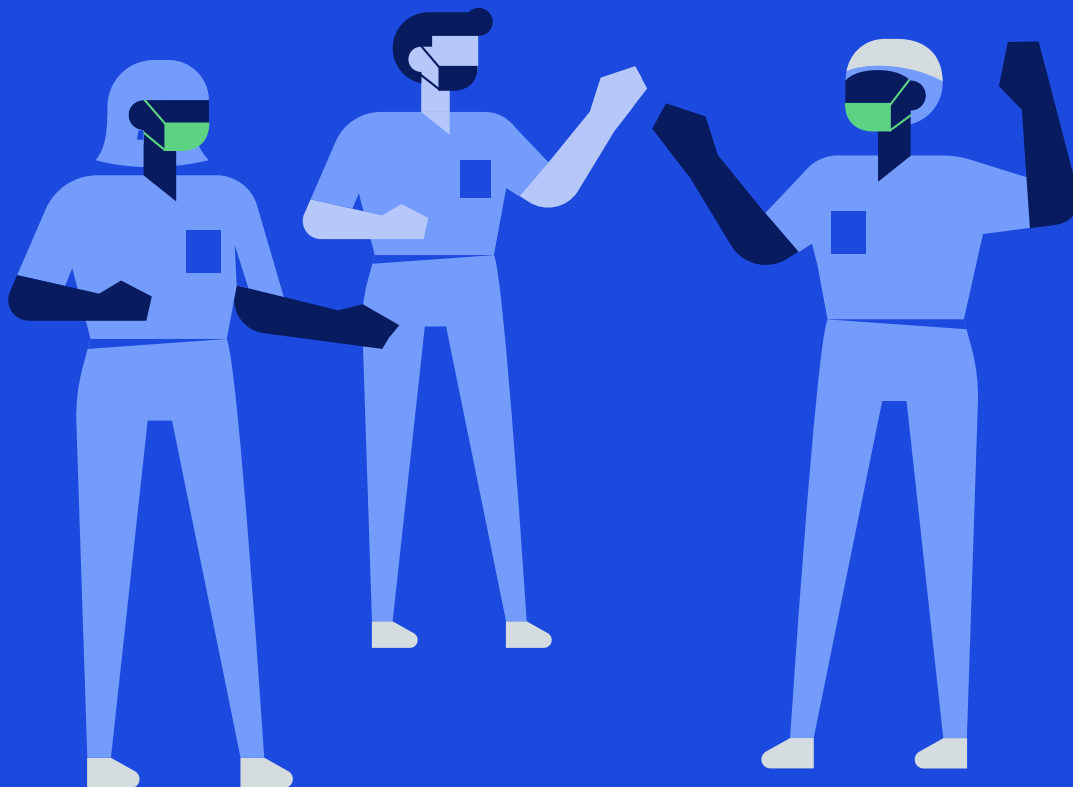
- Teams embrace data & AI insights
- Leadership gains visibility and agility
- Staff proactively seek cross-training opportunities
- Burnout is reduced through predictability and appropriate assignments

One of the most significant impacts has been a cultural transformation in how the organization approaches staffing. The implementation has fostered a culture of transparency and data-driven decision-making, with staff embracing the use of technology to improve their work environment.

An unexpected “aha moment” came when the electronic assignment board was implemented. Leadership kept the manual whiteboard as a backup, anticipating a gradual transition, but were surprised when staff completely abandoned the whiteboard within the first week in favor of the digital system. Staff even began requesting more AI-driven features, such as auto-populated assignments, demonstrating their enthusiasm for the technology.

Mr. Sumagaysay reflected on this cultural shift: “I think one of the aha moments for me is really the fact that the staff is embracing the data-driven staffing tools. From my perspective, that’s a big win for us.”

“ For the operating room, we see AI as a form of transformative opportunity, rather than just a technical shift.”  
— Dio Sumagaysay, RN, MS, Vice President, Perioperative & Multi-Specialty, Procedural Services



# What's Next for OHSU and iQueue for Operating Rooms

Building on their success, OHSU is expanding iQueue's staffing capabilities in several directions:

1. **Auto-Assign Functionality:** Using AI-driven insights to make the first pass at initial room assignments based on case experience without human impact and preferences in play
2. **Implementation in More Complex Environments:** Expanding the staffing solution to larger 24-hour operating rooms and trauma services
3. **Mobile Access to Assignments:** Enabling staff to access their room and break assignments from mobile devices
4. **Expansion to Anesthesia Staffing:** Applying similar data-driven approaches to optimize anesthesia resources
5. **Advanced Analytics:** Exploring cost analytics to reduce premium labor expenses, evaluate break strategies, and optimize staffing ratios

The organization sees AI as a partner workforce that can handle redundant administrative tasks, allowing staff to focus on complex decision-making and patient care. As Mr. Sumagaysay put it, "Having AI as your partner to do some redundant work is really where the future is going to be over the next few years, because we can't ask for more additional staffing. To me, that's a win-win."

## Integration with Block Optimization Initiatives

OHSU's staffing improvements through Staffing Daily Roster are closely integrated with their ongoing block optimization efforts. As Kristen Lund, RN, Director of OR/MSPU Scheduling & Pre-Operative Medicine Clinic, noted, "Block optimization is the bread and butter. I think that won't really ever go away." This synergy between staffing efficiency and block utilization is critical to OHSU's operational strategy for several reasons:

1. **Space Constraints Drive Efficiency Focus:** OHSU is physically "landlocked" with limited ability to expand their operating room footprint. As Ms. Lund explained, "Not having enough operating room space is a problem for us, and so that really drives a lot of the decisions and focus on block optimization." This reality makes it essential to maximize the use of every available minute in existing ORs.
2. **Staffing-Block Coordination:** As block schedules are optimized and restructured overtime, nurse

managers have the confidence they have the team members to cover the resulting changes in procedure and service line volume. Crosstraining and identifying those with the right skill set based on past experience is key to successfully staffing the ORs.

3. **Increased Room Utilization:** OHSU reduced surgical duration by 5 minutes and room turnover by 2 minutes on average after implementing the Staffing Daily Roster. These improvements indicate increased efficiency and consistency in the operating room leading to the schedule being more tightly packed, allowing for more patients to be seen each day, and increasing overall utilization of the operating rooms.
4. **Data-Driven Block Management:** The staffing forecast component of iQueue complements block optimization by providing predictive insights about staffing needs alongside room utilization projections. This allows leadership to know in advance what resources they will likely need and have confidence that the forecast will adjust as their block schedule is optimized.
5. **Future Direction:** OHSU continues to evolve their approach to block management, looking for "new ways, better and faster ways" to measure and react, creating a truly dynamic block schedule that works in concert with their improved staffing processes.

By addressing both staffing optimization and block utilization simultaneously, OHSU is maximizing the value of their most constrained resources: physical space and skilled staff. The data-driven approach enabled by iQueue provides the foundation for this comprehensive operational strategy.





## Quotes from OHSU Perioperative Staff

“ We now have instant access to comprehensive case histories for all our staff, including those floating from other hospitals. Having full visibility into case and experience details has accelerated our cross-training and orientation.”

— Service Line Coordinator

“ I’m very satisfied with our operating room staff over the past few months. There’s a wide range of experience and a competent team. I did not know you were using the tool to create opportunities for cross-training - that is amazing.”

— Surgeon, Otolaryngology

“ In the past there have been some struggles with staffing robotic cases, and overall, we are very pleased with the surgical team support. I have a consistent and competent team on the day-to-day.”

— Surgeon, OB/GYN

“ Charge nurses are saving several hours a week. We no longer have to copy the assignments from paper into the EHR, and spend less time revising initial assignments since SLCs have the information they need to support decisions around optimal assignments from the beginning.”

— Nurse Manager

