

# 11% More Cases. 8% Lower Labor Cost: How One Major Health System Optimized Anesthesiology Utilization

As margins tightened and labor shortages deepened, a major academic health system needed more than better scheduling. Across 180+ anesthesia locations—traditional ORs, high-volume procedural rooms, remote community facilities—it needed to see, measure, and precisely deploy its workforce for every case type and every hour of demand. But no tool existed to help make that possible. So the anesthesiology team at the health system built one. That tool is now available to everyone.

## THE CHALLENGE

### The Staffing Problem Hidden in Plain Sight

Anesthesiology faces long-term workforce pressures with no easy fix. CRNA compensation rose 28% between 2019 and 2024.<sup>1</sup> U.S. surgical procedure volumes are projected to grow at a 3.3% CAGR through 2030<sup>2</sup>—while 40% of anesthesiologists say they plan to leave their roles within two years.<sup>3</sup>

This health system recognized early that the opportunity to improve would have to come from within. As staffing decisions grew more costly and more consequential, the absence of reliable utilization data became a systemic problem. Staff-assignment systems and case-demand systems operated in silos. Floor runners often staffed for worst-case scenarios. Add-on and urgent cases—20–25% of daily volume—made reliable forecasting nearly impossible.

The result was chronic overstaffing and inflated locum costs—not from poor judgment, but from a system that gave people no better option. For years, absorbing those costs was manageable. But as margins eroded, it was no longer tenable.

## THE SOLUTION

### Full Visibility First. Then Intelligence Across Every Horizon.

No existing solution could connect workforce data to actual utilization demand. **Losai Health** was developed to close that gap. This is not a scheduling tool. Most anesthesiology departments know they have a staffing problem. What they lack is a way to measure it clearly. Losai provides that visibility.

By connecting historic case data and future-looking staffing assignments across every procedural location, Losai reveals a system-wide picture of anesthesiology utilization. The team had suspected inefficiency. But once the data was connected, the scale of underutilization proved larger than expected.

**“We needed information that gave people the confidence to staff to actual need, not worst-case fear.”**

Dr. Padma Gulur  
Executive Vice Chair, Department of Anesthesiology

## THE SOLUTION (CONT'D)

Measurement is the first step. Prediction is the second. Losai trains on years of historic case data, daily staff scheduling extracts, and nuanced OR location mapping—retraining daily to generate dynamic predictions on optimal staffing needs weeks and months ahead. That kind of clarity means a new floor runner could perform like a twenty-year veteran on day one.

<sup>1</sup> Becker's ASC Review, "CRNA Pay Has Increased 28% Since 2019," 2025

<sup>2</sup> PS Market Research, "Surgical Procedures Market Size & Share Report," 2024–2030

<sup>3</sup> Becker's ASC Review, "The Anesthesia Provider Shortage In 10 Numbers," 2025

## FROM PLANNING TO PRACTICE

### Long-range

System-wide utilization visibility

*FTE strategy and planning become data-driven*

### Months ahead

Vacation approvals, hiring, roster decisions

*Based on data, not recollection*

### Day of

Hour-by-hour staffing projections

*The right staff in the right place at the right time*

## OUTCOMES

# A Triple Win: More Cases. Leaner Operations. Happier Staff.

The health system deployed Losai in July 2020—mid-pandemic, in live operations. Not a pilot. Not a simulation.

Within 18 months of deployment, the health system achieved:

65% → 85%

Anesthesiology  
staff utilization rate

+11%

Increase in  
case volume

-8%

Reduction in  
FTE requirements

≈0

Same-day call-offs  
trending to none

- Scheduled hours fell sharply relative to physically required hours—proof that staffing to need, not capacity, works.
- Contribution margin improved materially, meaning each hour of anesthesiology coverage generated more net revenue, confirming Losai as both a financial and operational lever.
- Greater schedule predictability reduced chronic overtime, last-minute temp staffing calls, and the day-to-day uncertainty that drives staff away in a tight labor market.
- When peer institutions were closing ORs, the health system was running 130 anesthesia locations.

**“It became a triple win—better utilization of our anesthesiology teams, stronger financial performance, and a more predictable work-day for our staff.”**

Dr. Padma Gulur, Executive Vice Chair, Department of Anesthesiology

Losai was built inside one of the country's most complex health systems—and tested across every facility type within it: academic, community, specialty, and ambulatory. If your health system delivers anesthesiology services, there is measurable margin to be recovered.

## ABOUT LOSAI HEALTH

Losai Health is an AI-powered anesthesiology workforce intelligence platform. It is based on inventions developed at Duke University. The technology was licensed through Duke's Office of Translation & Commercialization and is now commercialized in partnership with Summit Venture Studio (SVS).

## GETTING STARTED

- ✓ No patient data required, no AI infrastructure needed
- ✓ Onboarding in ~30 days; predictive insights within ~60
- ✓ Runs alongside existing platforms—nothing replaced, nothing disrupted