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## Abstract

This project explores the implementation of GEMBA boards in the operating room to improve first-case-on-time starts and enhance overall workflow efficiency.

### Introduction

First case on-time starts (FCOTS) are a key performance indicator in the operating room (OR) that directly impacts efficiency, patient safety, and satisfaction. In late 2022, Harris Health's perioperative team adopted the GEMBA board model- adapted from the Japanese concept of "Gemba," meaning "the real place" -as part of a system-wide initiative aimed at process improvement. Prior to implementation, the OR's FCOTS rate averaged 75% in Q4 2022—below the institutional goal of 80%. Contributing factors included communication breakdowns, inconsistent processes, and unclear accountability.

### Assessment

To improve FCOTS by implementing a GEMBA board as a collaborative and visual tool for identifying and addressing practice gaps and workflow barriers in real time.

### Implementation

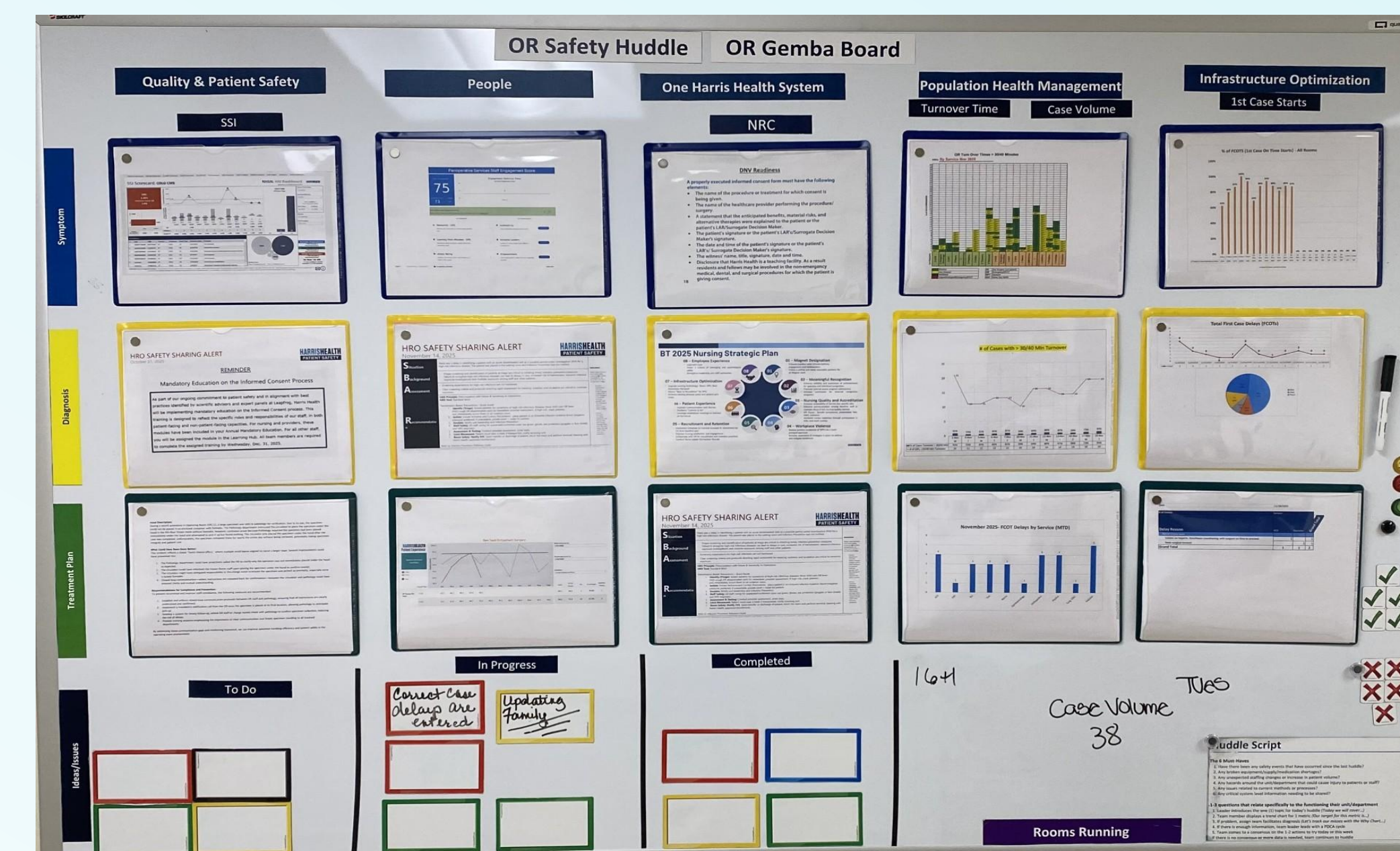
This quality improvement project took place in a high-volume, multi-specialty OR setting. A centrally located GEMBA board was introduced and updated daily by the OR leadership team. The board tracked key performance metrics and categorized delay reasons. Daily interdisciplinary huddles were held to review the prior day's performance, address immediate concerns, and plan corrective actions. The prior-day performance metrics include case volume, timely first case starts, delays, patient safety issues, and facility issues.

### Outcomes

The GEMBA board served as a transparent, team-driven platform for ongoing feedback, accountability, and collaborative problem-solving. Staff engagement increased, as demonstrated by increased attendance and participation rates, and ownership of processes was enhanced across roles. Utilization of the GEMBA board during departmental huddles helped identify several key areas for improvement, including delays in obtaining complete and accurate consents from all members of the OR team. Implementation of the GEMBA process revealed two key workflow gaps, which drove the OR team to implement two interventions that ultimately improved FCOTS. The implementation of the GEMBA board significantly improved FCOTS performance, with rates rising from 75% to a sustained 88% by Q1 2025.

### Results

Based on GEMBA Board findings, the Optimization Nurse role and the dedicated inpatient OR transporter were implemented to improve clinical workflow. This low-cost, high-impact strategy empowered perioperative teams and uncovered actionable gaps in practice. The model is scalable and can be adapted to other procedural areas to enhance operational efficiency and patient outcomes. Building on the successful implementation of the GEMBA Board in the OR, the initiative was subsequently deployed across the hospital system, with departments such as PACU, GI, Cath Lab, and IR integrating the practice into their daily operations.



### Identified Opportunities for Improvement

- Communication breakdown between inpatient units, OR, and Pre-op departments regarding patient readiness for surgery, which includes pre-surgery checklists and surgical/anesthesia consents not being completed in a timely manner.
- Competing demands for nursing attendants' attention, such as room turnovers and specimen lab delivery, leading to delays in surgical patient pickup and transport

In response, two targeted interventions were deployed:

1. Optimization Nurse Role – A designated OR nurse stationed in pre-op to verify consent completion and coordinate readiness with responsible departments.
2. Dedicated Inpatient OR Transport – Two full-time transport staff assigned solely to facilitate timely inpatient arrivals to the OR

Data on FCOTS were collected for 2 years, comparing pre- and post-implementation performance.

### References

Bourgault AM, Upvall MJ, Graham A. Using Gemba Boards to Facilitate Evidence-Based Practicin Critical Care. *Crit Care Nurse*. 2018 Jun;38(3):e1-e7. doi: 10.4037/ccn2018714. PMID: 29858202.

Leaders, T., Bach, L., Vargas-Beach, K., Anders, A., Walker, E., & McCulloch, B. (2021). *First-case on-time starts: Barriers and strategies to improve operating room efficiency*. *Journal of PeriAnesthesia Nursing*, 36(6), 602–611. <https://doi.org/10.1016/j.jopan.2021.06.045>

Saul B, Ketelaar E, Yaish A, Wagner M, Comrie R, Brannan GD, Restini C, Balancio M. Assessing Root Causes of First Case On-time Start (FCOTS) Delay in the Orthopedic Department at a Busy Level II Community Teaching Hospital. *Spartan Med Res J*. 2022 Sep 6;7(2):36719. doi: 10.51894/001c.36719. PMID: 36128021; PMCID: PMC9448658.

