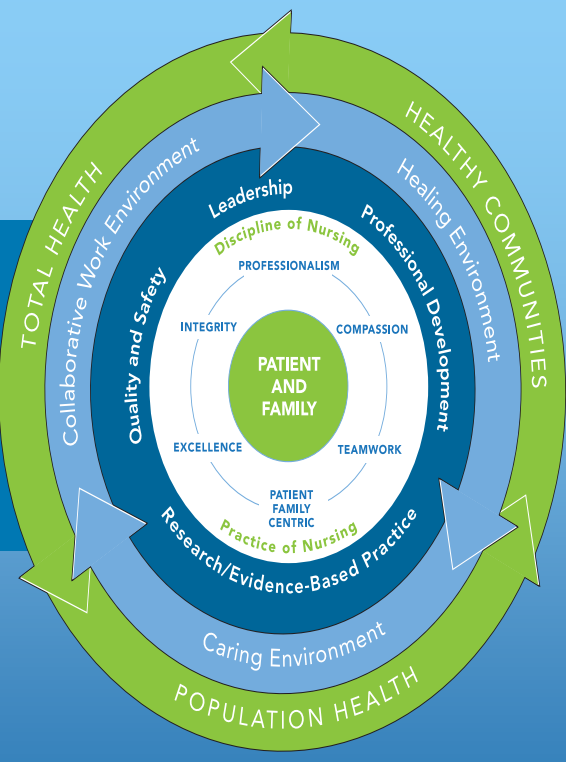


# Reducing Turnover Time and Improving First Case On-Time Starts Through Teamwork and Process Improvements

Using Teamwork, Safety Culture, and Readiness for Change to Guide OR Efficiency Interventions

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### INTRODUCTION

**Project Aim:** To reduce average operating room turnover time by **20%** from baseline and improve first case on-time starts to **above 80%** across selected orthopedic and spine service lines at Kaiser Oakland Medical Center (KOMC) **within 6 months**, through targeted workflow standardization and TeamSTEPPS-based teamwork interventions, while maintaining a strong patient safety culture.

U.S. healthcare spending approached **\$5.0 trillion** in 2025, accounting for nearly **19% of the nation's GDP**. As healthcare costs continue to rise, operating room (OR) efficiency has become increasingly critical to both cost containment and the delivery of high-quality patient care.

- KOMC has **23 ORs across 19 surgical specialties**
- OR time exceeds **\$115 per minute**, making turnover efficiency a key improvement target
- OR turnover efficiency is influenced by **teamwork, communication, and leadership**—not processes alone
- Baseline and post-intervention assessments guide **targeted improvement strategies**
- TeamSTEPPS principles reinforce **communication, accountability, and standardized turnover practices**
- Teamwork and safety culture will be evaluated using a **validated Safety Attitudes Questionnaire (OR version)** administered pre- and post-intervention to track changes associated with the improvement initiative.

### HYPOTHESIS

Implementation of a standardized OR turnover process and TeamSTEPPS-based communication strategies will result in reduced **turnover time**, fewer procedural delays, and improved **first case on-time starts**. Improvements in teamwork and communication are expected to positively influence multiple **patient safety culture domains** and overall OR flow rather than a single isolated domain.

### RATIONALE

Reducing TOT and improving FCOTS require coordinated interventions that address both workflow processes and team behaviors. This involves multiple disciplines and handoffs, making communication, role clarity, and standardization essential to minimizing delays and variability. Standardized practices supported by shared accountability reduce idle time and promote consistent execution. Strengthening teamwork through TeamSTEPPS principles supports efficient OR flow while maintaining a culture of patient safety, staff engagement, and operational efficiency.

### METHODS

This process improvement project uses a phased approach to reduce OR turnover time and improve first case on-time starts.

#### 1 Phase 1: Baseline Assessment

- OR-specific assessment of:
  - Safety culture
  - Teamwork performance
  - Readiness and motivation for change
- Development of a fishbone diagram to assess current state
- Administration of SAQ-OR to staff to measure pre-implementation safety culture and teamwork performance

#### 2 Phase 2: Targeted Interventions

- Standardization of OR turnover workflows
- TeamSTEPPS-informed teamwork and communication strategies
- Improved role clarity and communication during turnovers
- Staffing and training optimization informed by assessment findings

#### 3 Phase 3: Evaluation

- Pre- and post-intervention comparisons
- Key performance indicators:
  - Turnover time (TOT)
  - First case on-time starts (FCOTS)
  - Infection rates
  - Surgical outcomes
  - Patient experience measures (HCAHPS)

### Framework to Optimize OR Efficiency

**Baseline Assessment**

- OR-specific safety culture and teamwork survey
- Adapted from established safety culture frameworks
- Enhance staff utilization strategies

**Implement Interventions**

- TeamSTEPPS training
- Standardized protocols
- Optimized scheduling

**Evaluate Outcomes**

- Reduce turnover time
- Increase first case on-time starts
- Improve staff satisfaction

### OR Efficiency Pilot: Risk Matrix

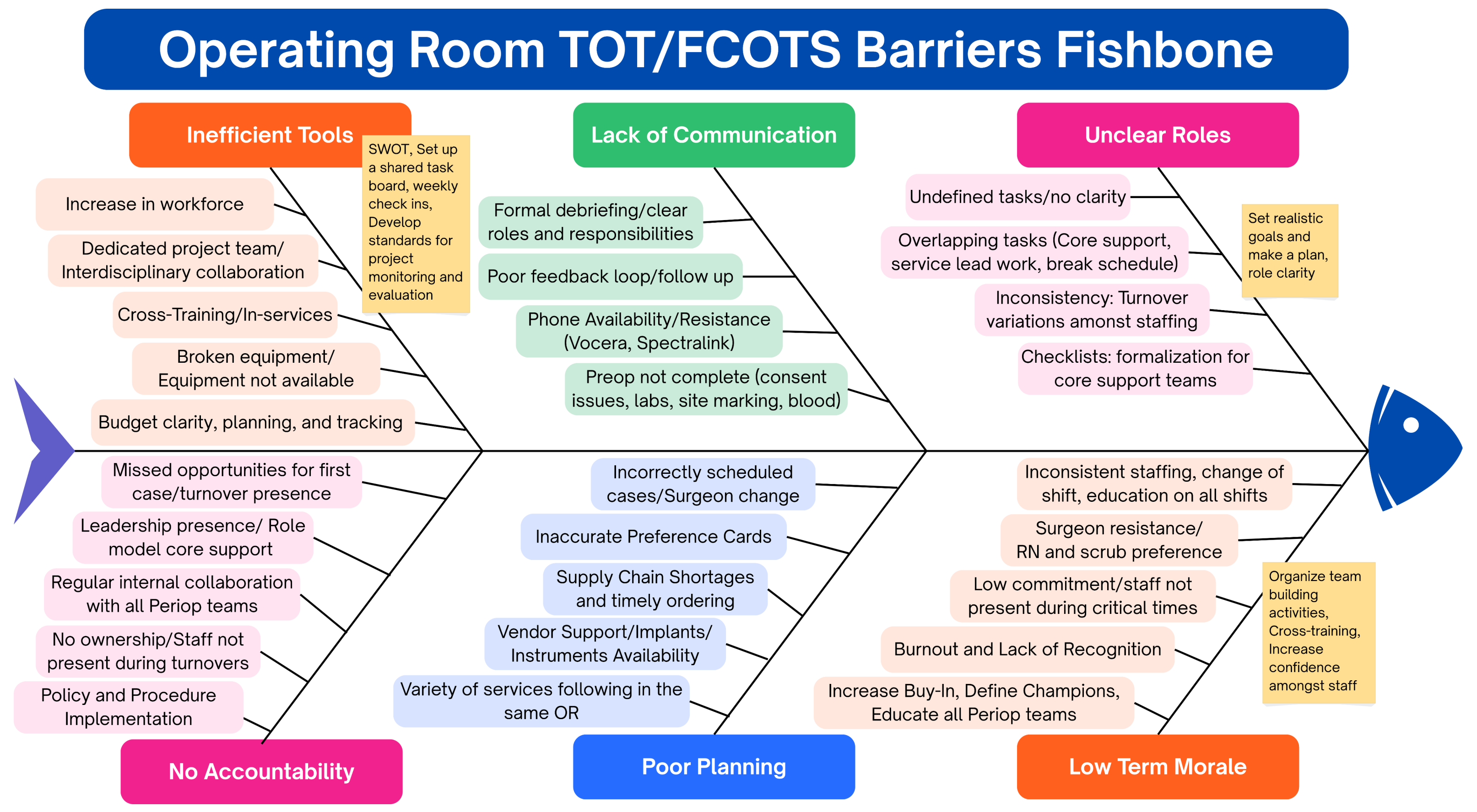
Risk	Likelihood	Impact	Mitigation
Cultural Resistance	High	High	Engage champions early, communicate benefits
Lack of Leadership Support	Moderate	High	Secure buy-in from leaders
Inadequate Communication	Moderate	High	Clearly communicating goals and expectations
Resource Constraints	Moderate	Moderate	Address staffing and equipment needs
Data Integrity Issues	Low	Moderate	Validate and monitor data
Workflow Complexity	Low	Moderate	Monitor with a Smaller Scope
External	Emergency cases, vendor delays, etc →		

### ANTICIPATED FINDINGS

- Identification of teamwork and communication barriers** contributing to prolonged turnover time
- Variation in readiness for change** across periop
- Data-informed selection of standardization and teamwork interventions**

### SIGNIFICANCE

- Provides a structured, low-burden approach** to assessing key drivers of OR efficiency
- Aligns teamwork and safety culture** with measurable operational outcomes
- Supports sustainable improvements** in turnover time and first case on-time starts
- Reinforces the link between OR efficiency, patient safety, and staff engagement**



### IMPLICATIONS FOR PRACTICE

- Improving turnover time and first-case on-time starts** requires addressing both workflow processes and perioperative team behaviors
- Baseline assessment of OR teamwork and safety culture** can help perioperative leaders identify modifiable contributors to inefficiency
- Data-informed selection of TeamSTEPPS tools** may improve turnovers and handoffs
- Aligning efficiency goals with safety culture** supports sustainable improvements in periop

### KEYWORDS

Turnover time; first case on-time starts; operating room efficiency; safety culture; safety attitudes; teamwork; TeamSTEPPS; patient safety; cost containment

### FOOTNOTE

The SAQ-OR assessment was adapted from Dr. Hoyte's DNP project with permission from the creator of the Safety Attitudes Questionnaire. The adapted assessment aligns with established safety culture and teamwork frameworks and does not reproduce proprietary survey items.