

Bariatric Enhanced Recovery: Optimization Using ISCR Framework

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Introduction

Problem: This evidence-based practice project addressed increased length of stay (LOS) and opioid use for bariatric patients at UIHC with associated postoperative nausea and vomiting. [1]

Significance:

- Variation in practice may contribute to increased surgical complications, LOS and readmission rates. [2,5]
- Opioid use contributes to post-operative nausea and vomiting, a leading factor in increased LOS, readmission rates and other postoperative complications. [4]
- Opioid-naïve patient populations are at higher risk of opioid addiction. [4]
- Complexity of care environments present challenges to proper safety culture and multidisciplinary team dynamics. [6]

Purpose

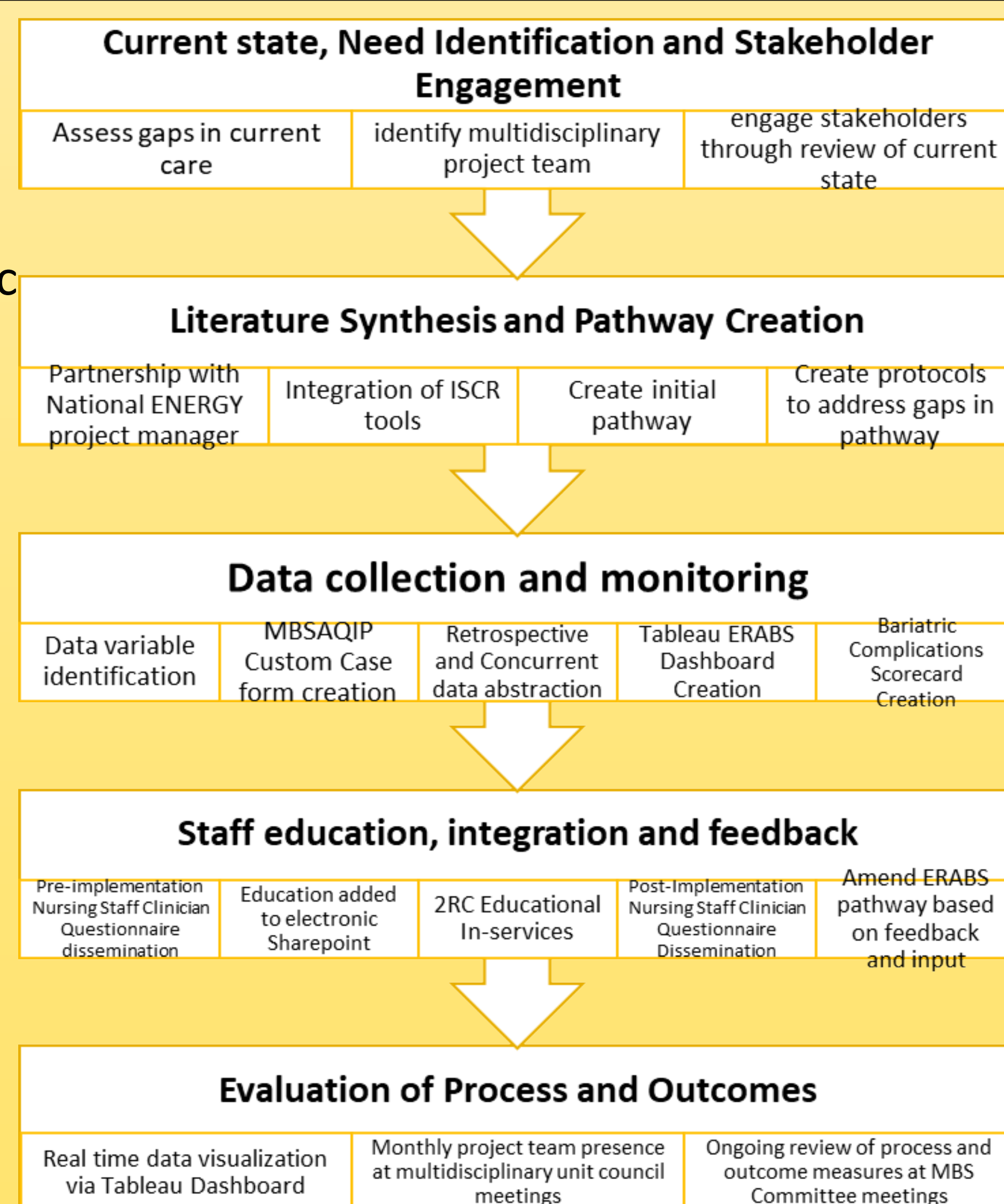
The purpose of this project is to optimize and evaluate a collaborative Enhanced Recovery After Bariatric Surgery (ERABS) program aligned with AHRQ's Improving Surgical Care and Recovery (ISCR) program at UIHC.

Objectives:

- Objective 1: Increase frontline nursing staff awareness and improve their understanding of the ERABS program
- Objective 2: Maintain an average length of stay at or below the national average of 34.8 hours for Laparoscopic Sleeve Gastrectomy (LSG) procedures and 44.64 hours for Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) patients. .
- Objective 3: Decrease average post-operative opioid utilization by 25%
- Objective 4: Increase average intraoperative process measure

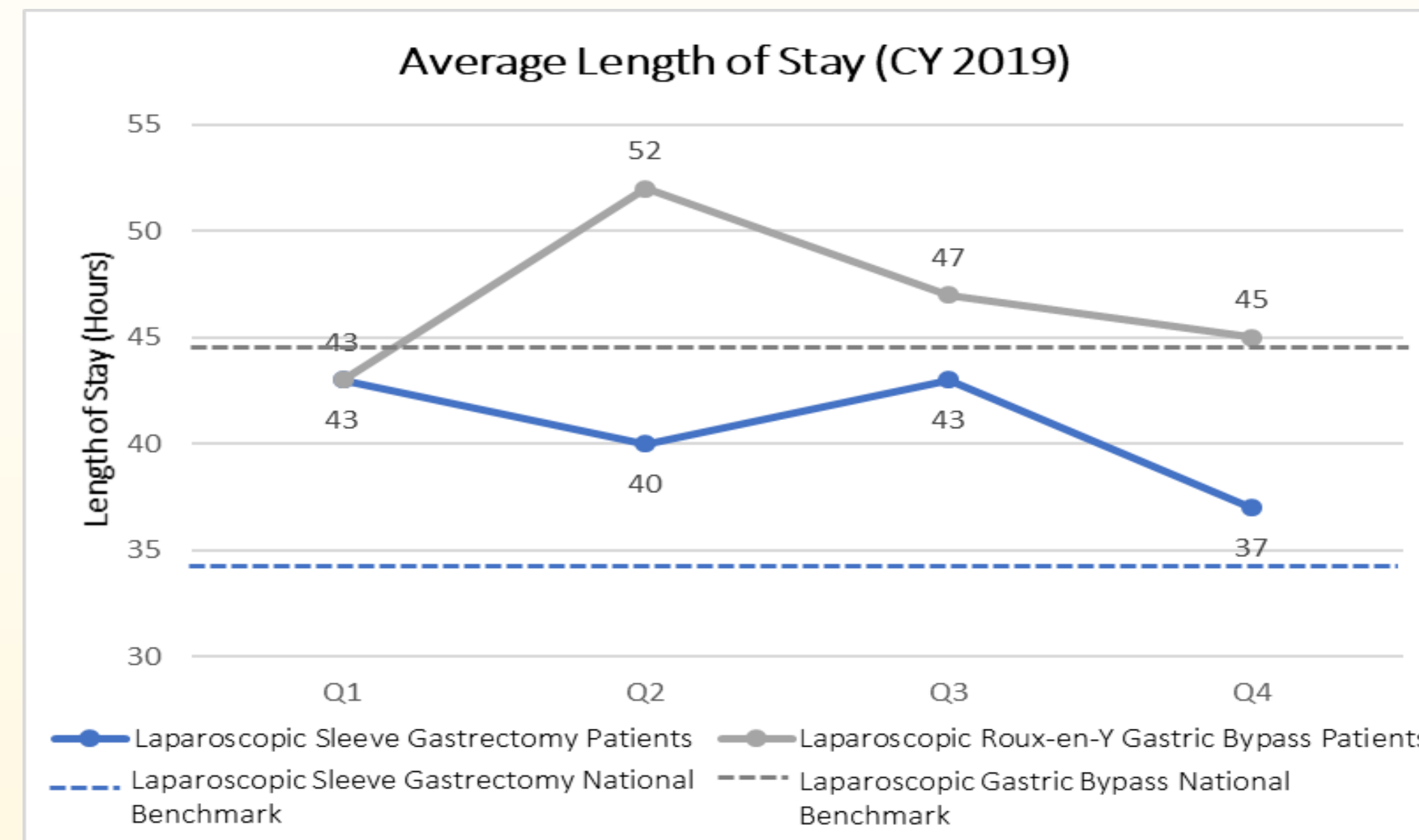
Methods

- Project was deemed not human subjects research
- Setting: UIHC Bariatric Center of Excellence
- Population: Adult Bariatric Surgical Patients Undergoing Primary LSG and LRYGB Procedures
- Model: The Iowa Model. [3]
- Timeline: January 2019- January 2020

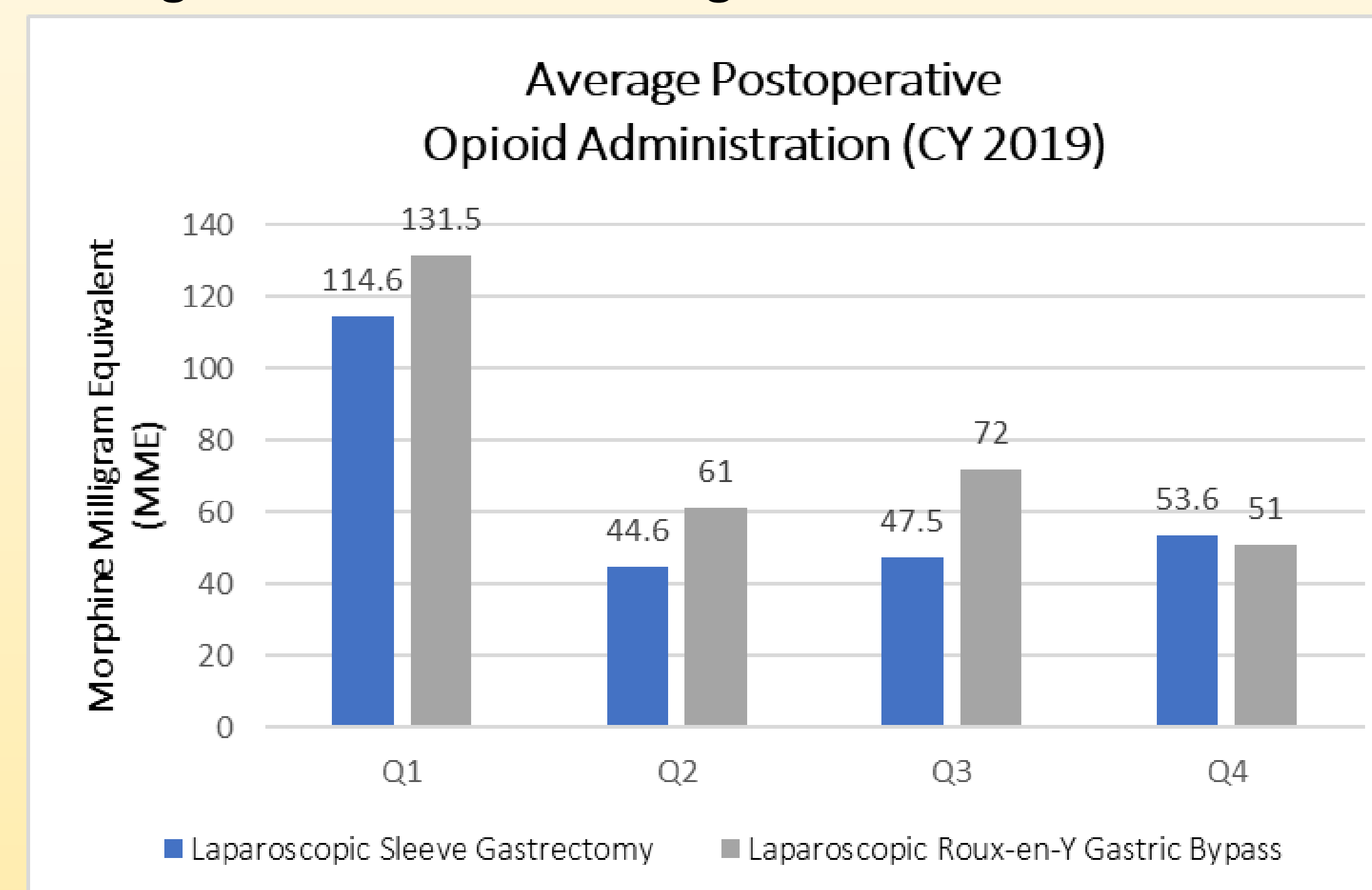


Outcomes

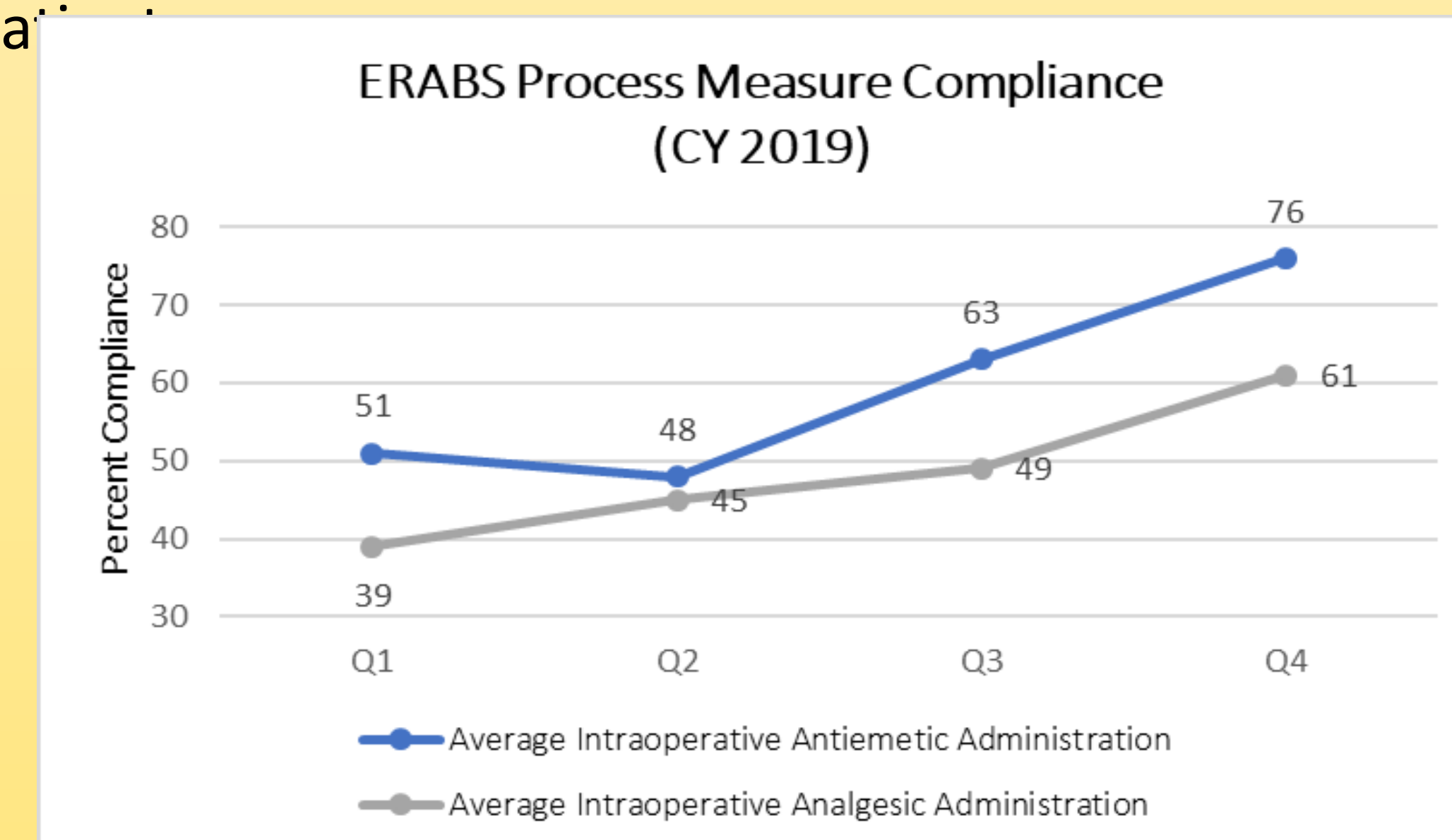
Provider Knowledge, Attitude and Beliefs: 10 % improvement from baseline



Length of Stay: LOS for LSG patients decreased by 14%. Improvement is still needed to align with national average.



Opioid Reduction: Significant decrease in postoperative opioid administration resulting in 53% reduction for LSG and 61% reduction for LRYGB patients.



Process Measure Compliance Overall antiemetic process measure compliance increased by 32% and overall analgesia process measure compliance increased by 36%.

Evaluation

- Initial adherence demonstrated need for interdepartmental workflow revision
- Additional education provided after initial nursing survey results indicated a need for staff resources and tools
- Cost of IV Tylenol was found to be a major barrier to early implementation, resulting in project team partnering with pharmacy

Conclusions

Practice Implications

- Implementation of an ERABS protocol and pathway resulted in decreased length of stay, reduction in opioid utilization and improved knowledge, attitudes and beliefs of frontline nursing staff, and awareness of necessity to decrease variation in practice
- The project methodology can be implemented in other perioperative care environments to expand upon the collaborative process and safety culture data collection

Key Learnings:

- Stakeholders represented multiple interprofessional groups and environments, making timely collaboration difficult
- Unit-specific workflows and real-time documentation challenges presented barriers to accurate evaluation
- Interdepartmental collaboration on this scale allows for opportunities to find and partner with others who are working towards same institutional priorities – optimizing the impact of the project

Sustainability

- Design and utilization of a Tableau dashboard allows for continued evaluation and visualization between multiple stakeholder groups
- Provide ongoing nursing education at onboarding/ annual competencies
- Increased interprofessional interest has increased partnership and data utilization, emphasizing ERABS as a priority in the institution

Future Recommendations

- Integration of other perioperative stakeholders with the current project team would allow for expansion of this program and implementation of project methods in additional perioperative care environments
- More education is needed throughout the interdisciplinary team to increase awareness and achieve all objectives of this project
- Further focus on interdisciplinary workflows and discharge planning

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