



Does Enhanced Recovery Improve Outcomes?

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No Disclosures

Enhanced Recovery After Surgery (ERAS)

- ERAS multimodal approach to perioperative care designed to reduce surgical stress, organ dysfunction, and postoperative complications
- ERAS focuses on standardization of preoperative, intraoperative and postoperative care pathways to include all team members – including the patient
- Europe created the International ERAS Society 2010
- American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) endorses ERAS programs
- In 2017, Improving Surgical Care and Recovery (ISCR) program created by ACS and Johns Hopkins Medicine Armstrong Institute for Patient Safety and Quality and funded by the Agency for Healthcare Research and Quality (AHRQ)
 - Goal aid hospitals across the country to adopt ERAS pathways



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100+years

ACS
NSQIP

ERAS[®] Society

ERAS Studies: Europe

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ERAS Studies: US Experience

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Surgical Technical Evidence Review for Colorectal Surgery Conducted for the AHRQ Safety Program for Improving Surgical Care and Recovery.

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Implementation Costs of an Enhanced Recovery After Surgery Program in the United States: A Financial Model and Sensitivity Analysis Based on Experiences at a Quaternary Academic Medical Center.

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Organizational Culture Changes Result in Improvement in Patient-Centered Outcomes: Implementation of an Integrated Recovery Pathway for Surgical Patients.

[Wick EC](#)¹, [Galante DJ](#)², [Hobson DB](#)³, [Benson AR](#)⁴, [Lee KH](#)⁵, [Berenholtz SM](#)⁶, [Efron JE](#)², [Pronovost PJ](#)⁶, [Wu CL](#)⁴.

The enhanced recovery after surgery (ERAS) program in liver surgery: a meta-analysis of randomized controlled trials

[Wei Song](#),[#] [Kai Wang](#),[#] [Run-jin Zhang](#), [Qi-xin Dai](#), and [Shu-bing Zou](#)[□]

Multidisciplinary Enhanced Recovery after Surgery (ERAS) in Total Joint Replacement: Complication Rates after Improving ERAS to Shorten Patient Length of Stay

[Udai S. Sibia](#), MD, MBA, [Hamid R. Zahiri](#), DO, [Adrian E. Park](#), MD, FACS, [Paul J. King](#), MD, [James H. MacDonald](#), MD

Anne Arundel Medical Center, Annapolis, MD

ERAS Studies: Community & Lay Press

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Prospective study of colorectal enhanced recovery after surgery in a community hospital.

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THE WALL STREET JOURNAL.

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Patients Bounce Back Faster From Surgery With Hospitals' New Protocol

Clear liquids and pain meds before surgery, less IV fluid during and fewer narcotics afterward

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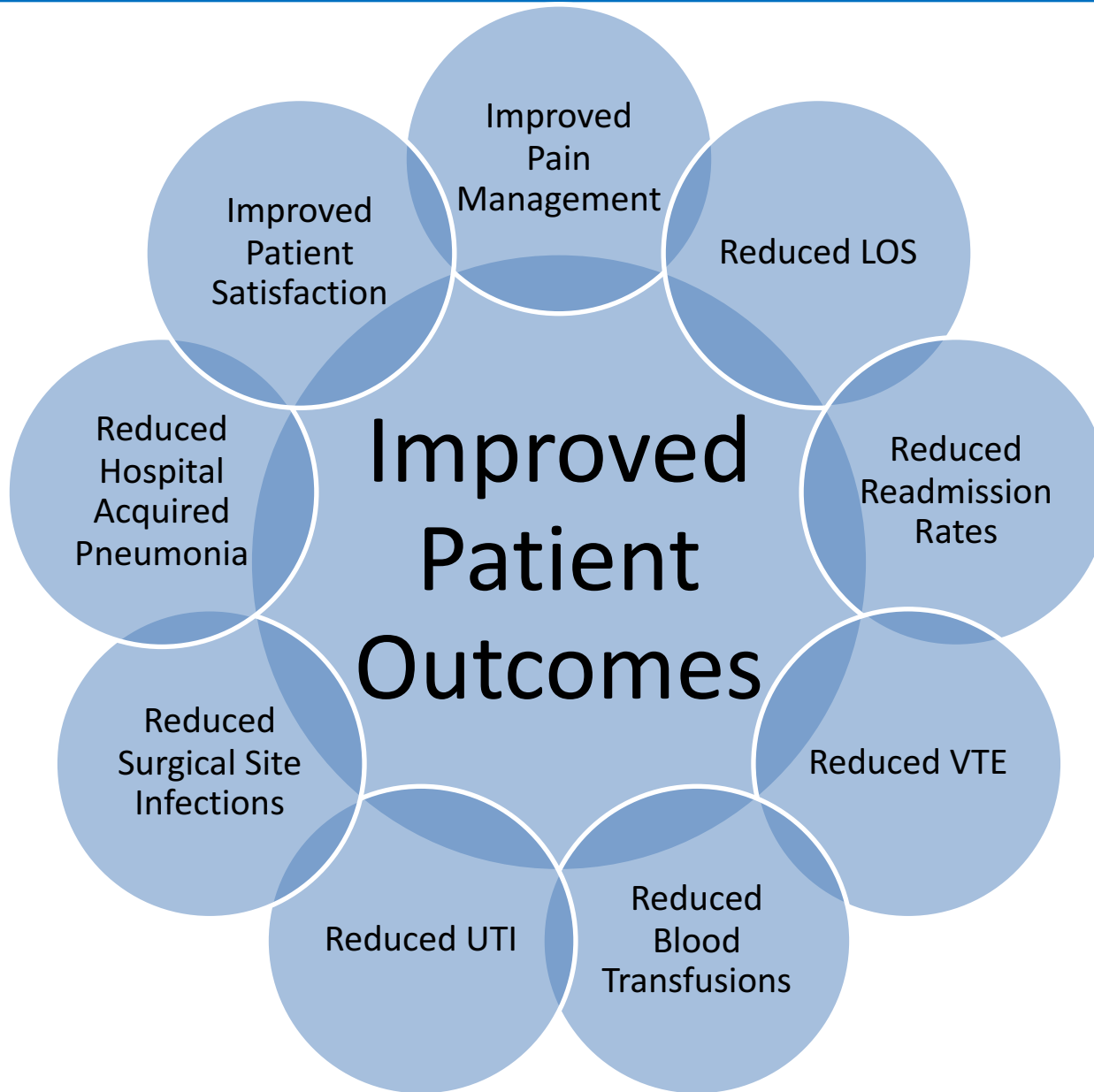
· [Conditions & Diseases Learning Center](#)

New Ways to Bounce Back After Surgery

 Food, fluids and exercise help speed recovery, experts say

 by [Renee Bacher](#), [AARP Bulletin](#), July/August 2015 |  Comments: 1

Benefits of Enhanced Recovery Program



Multidisciplinary Team

House Staff

Care Management

Pharmacy

Respiratory

Nutrition

Patient

Wound Care

Surgeon

Anesthesia

Nurse

Physician Assistant

Office Staff

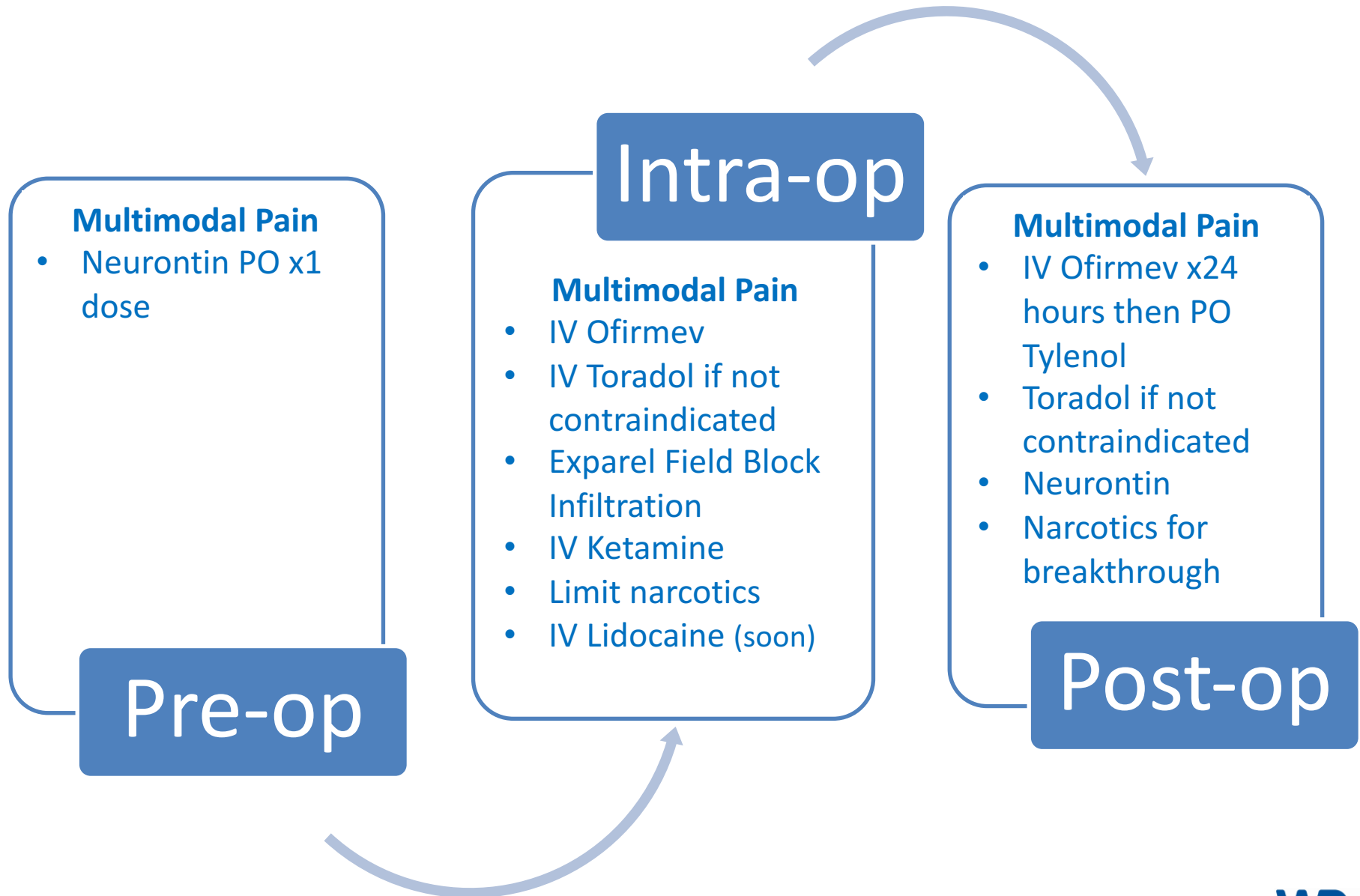
Physical Therapy

Informatics Team

Infection Control

Medical Subspecialties

Standardized Programs for Each Phase of Care



ERAS WPH Outcomes First 12 months – Intestinal Surgery

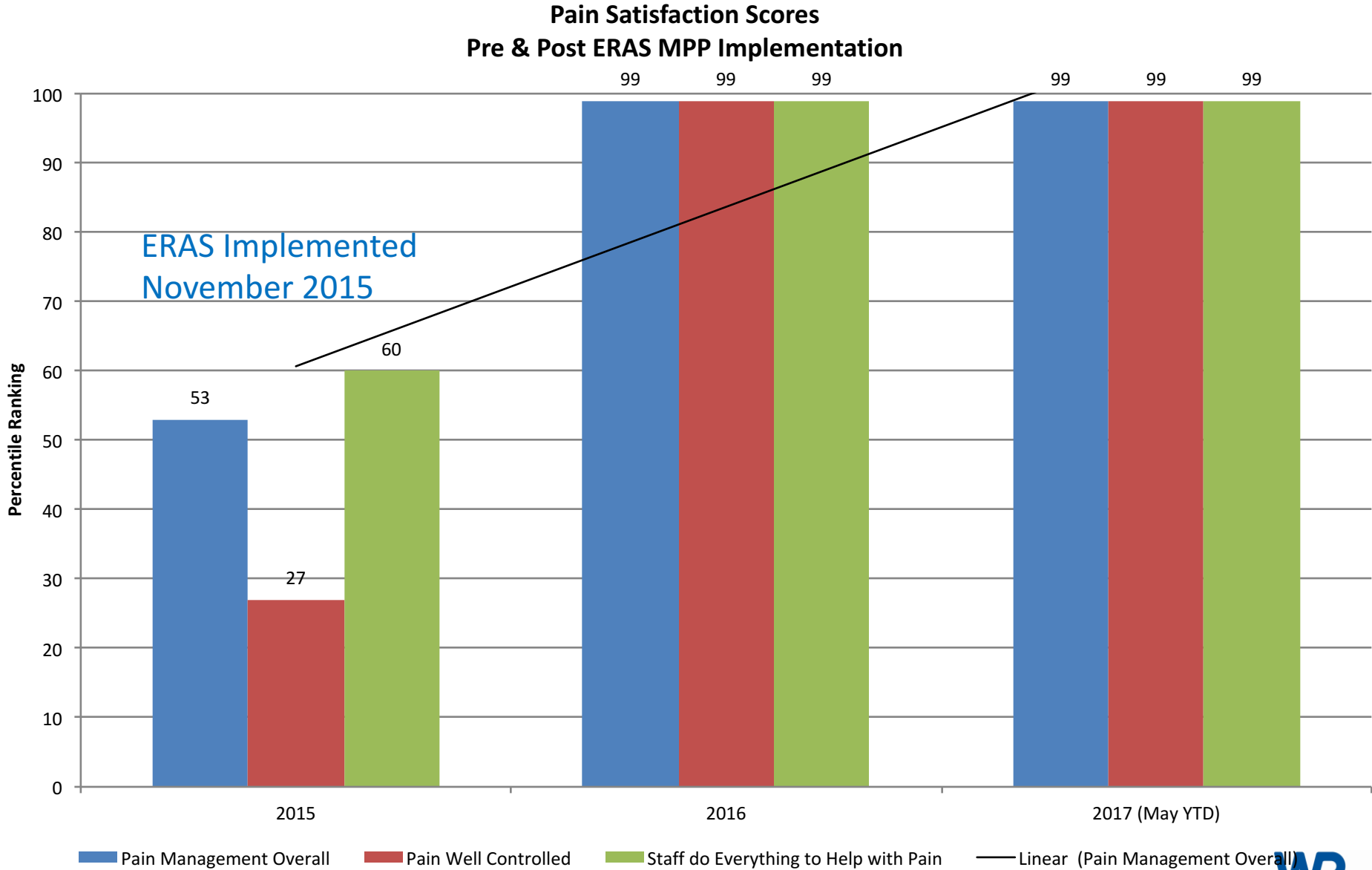
Indicator	Pre-ERAS	Post-ERAS	Source
Pain Management	45%ile	99%ile	HCAHPS
Length of Stay	7.61	5.78	Meditech
Surgical Site Infections	1.30 SIR	0.78 SIR	NHSN
VTE Events	26%	23%	Midas
Pneumonia	6.29 (8)	4.07 (4)	NSQIP
Renal Failure	2.06 (5)	1.3 (0)	NSQIP
Urinary Tract Infection	2.05 (4)	1.73 (0)	NSQIP
Morbidity	17.68 (19)	14.43 (11)	NSQIP
Mortality	3.33 (4)	2.83 (2)	NSQIP
Return to OR	4.9 (5)	5.23 (6)	NSQIP
Readmissions	9.96 (7)	10.13 (7)	NSQIP

HCAHPS – Hospital Consumer Assessment of Healthcare Providers and Systems

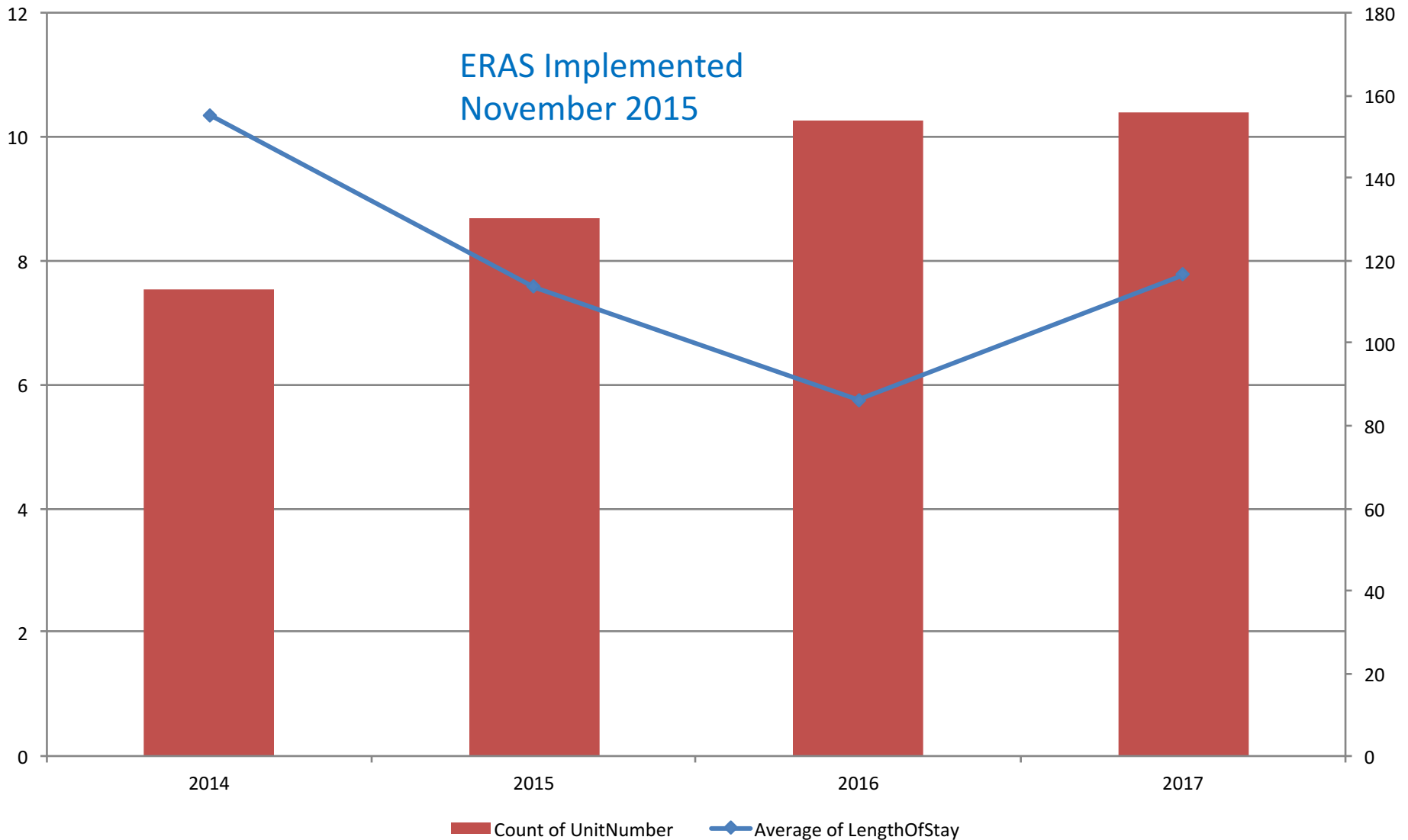
NHSN – National Healthcare Safety Network

NSQIP – National Surgical Quality Improvement Program (Smoothed Rate) 2015 vs. 2016 YTD Sept

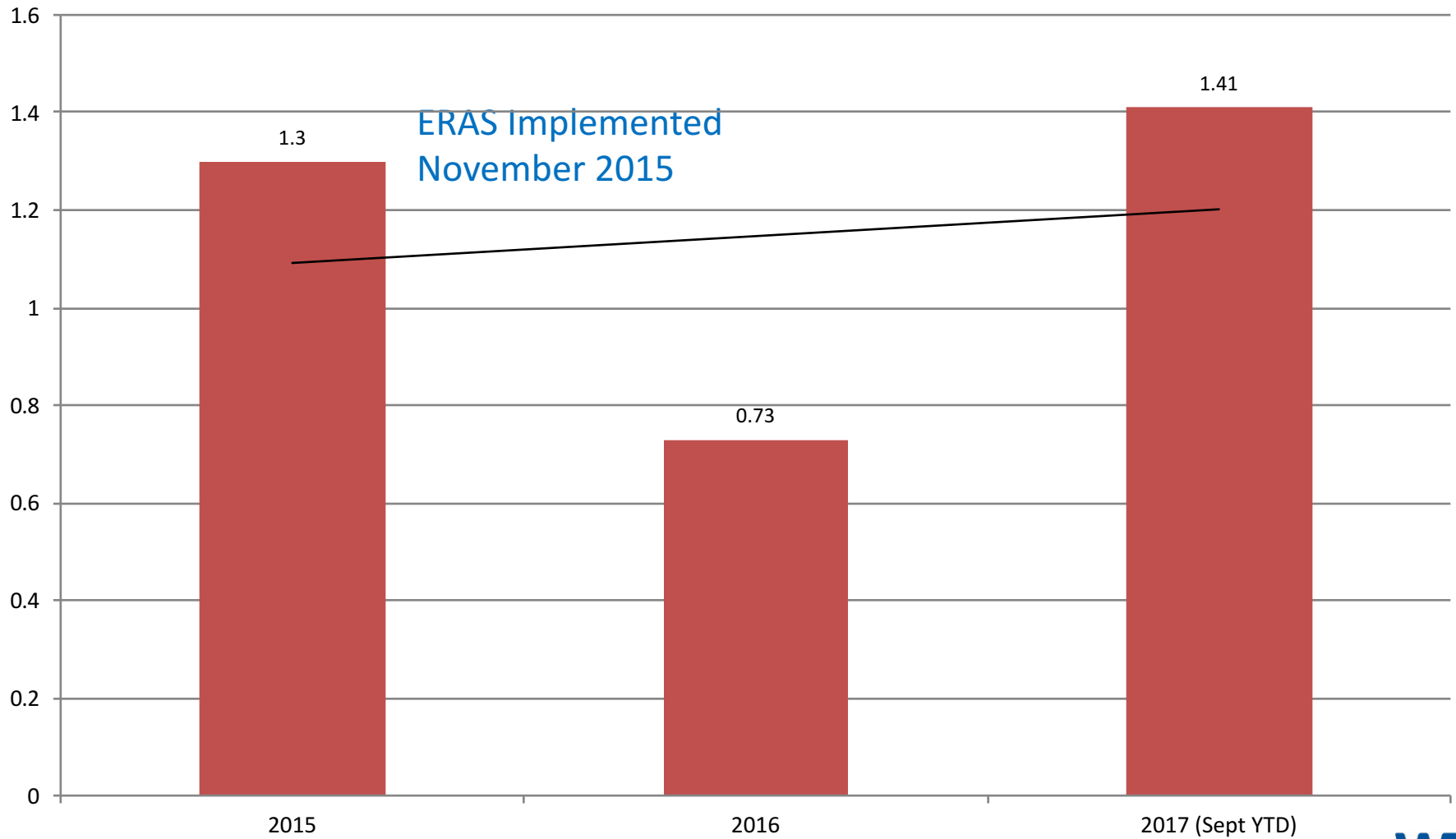
Colorectal Patient Satisfaction Scores - Pain



Elective Colorectal Surgery – Average Length of Stay



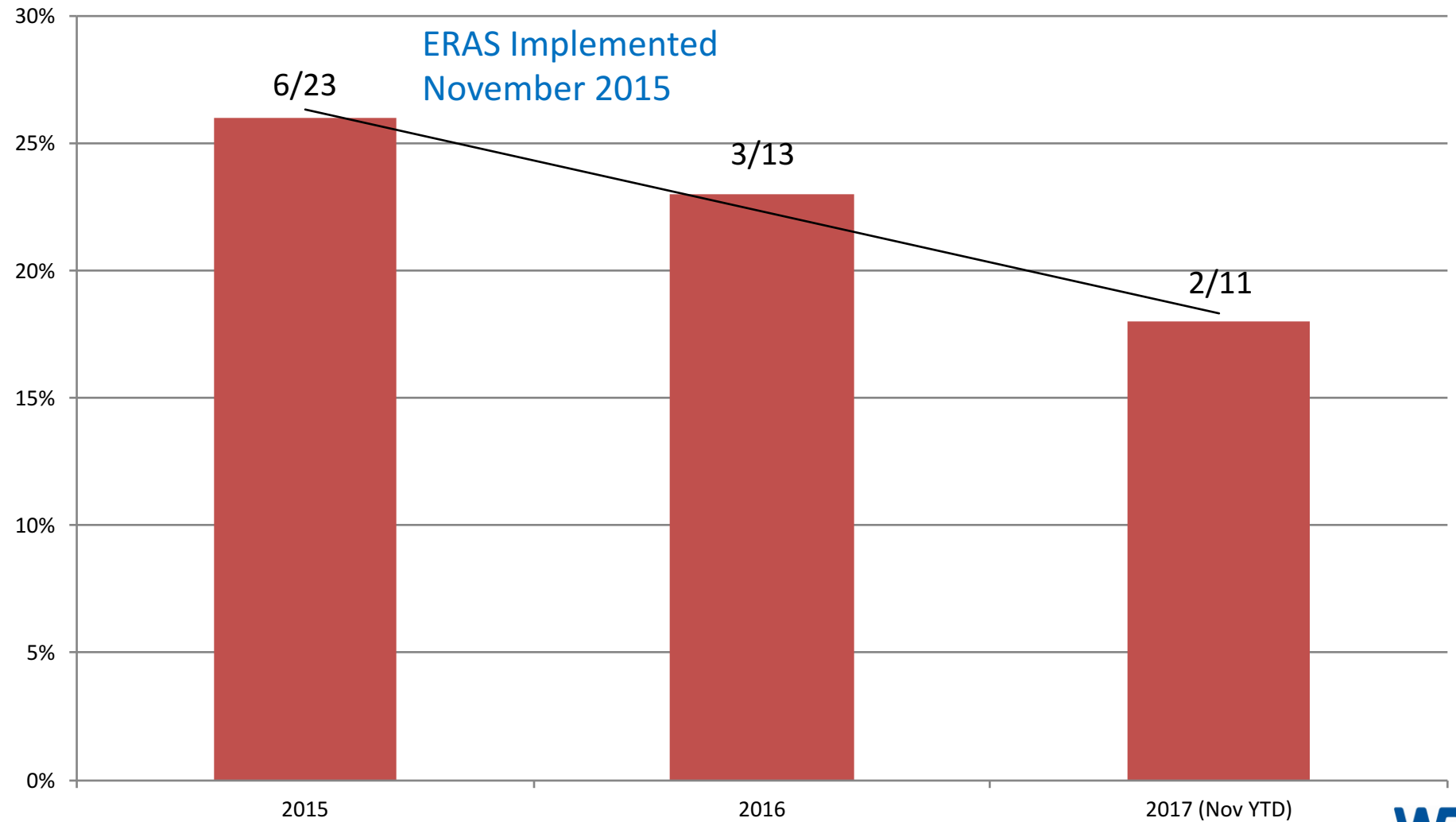
White Plains Hospital Colorectal Standardized Infection Ratio (SIR)



Colorectal VTE

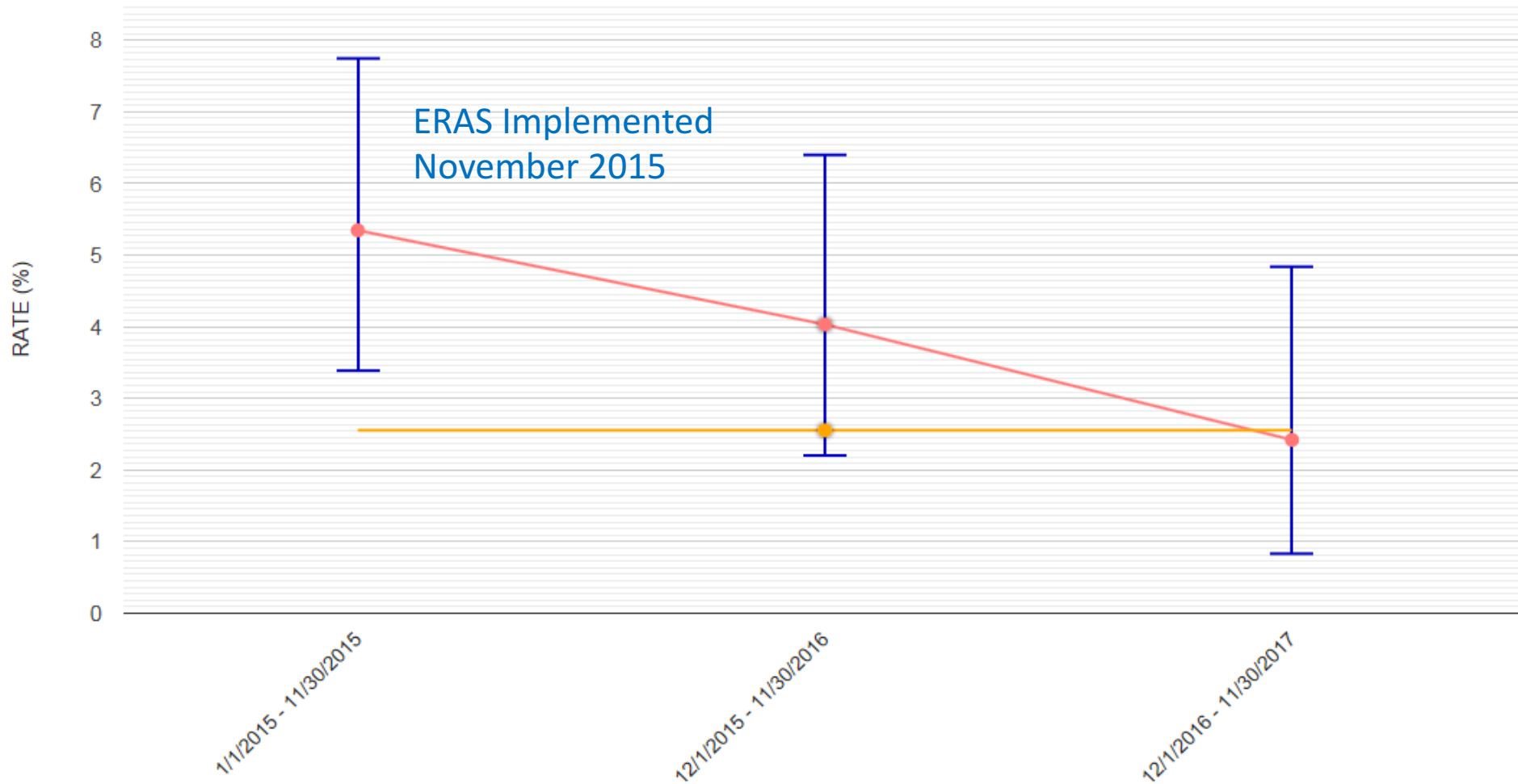
White Plains Hospital % Colorectal VTE from all Periop VTEs

ERAS Implemented
November 2015



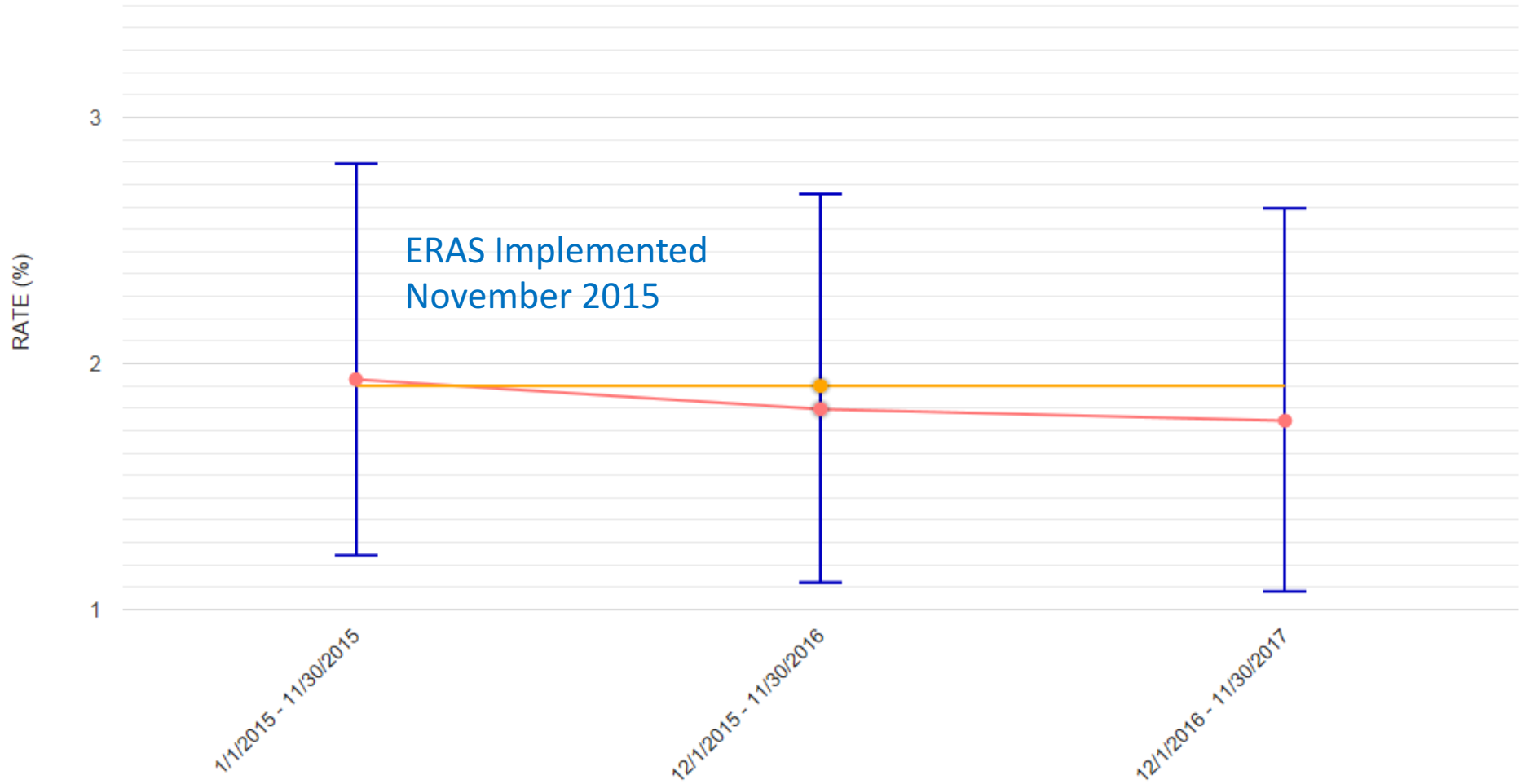
COLORECT Pneumonia

01/01/2015 - 11/30/2017 (1 Year Intervals)



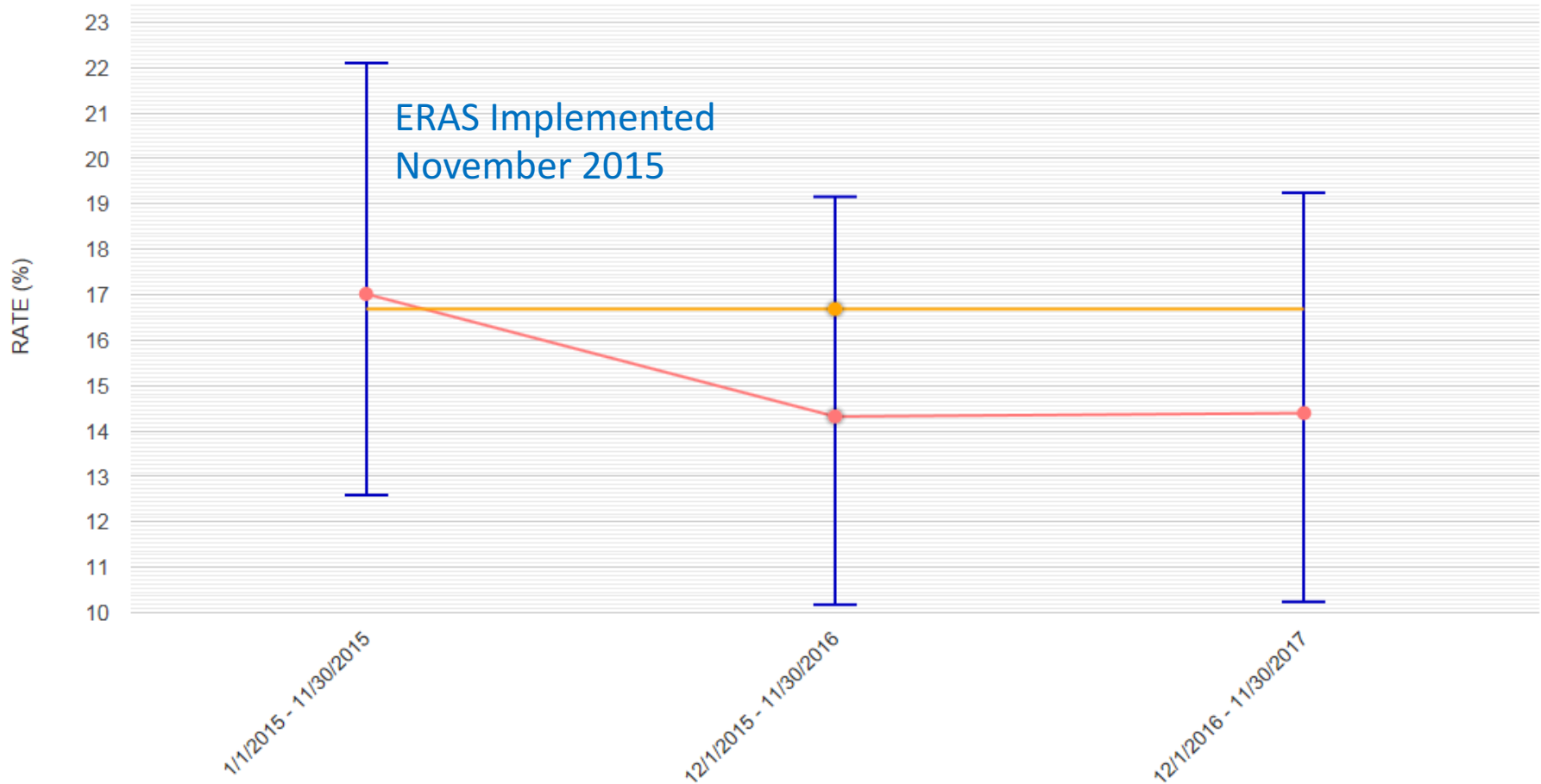
COLORECT UTI

01/01/2015 - 11/30/2017 (1 Year Intervals)



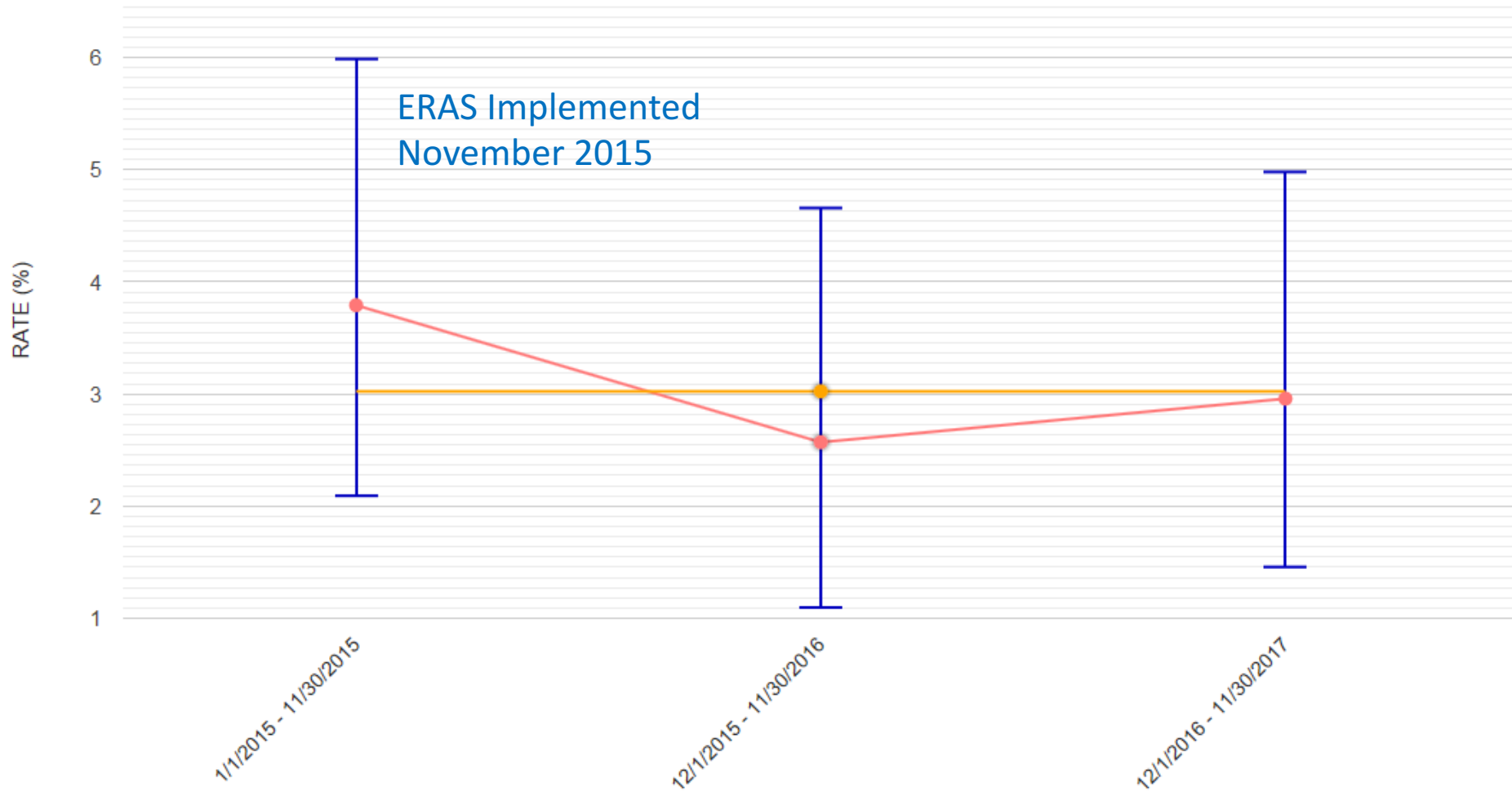
COLORECT Morbidity

01/01/2015 - 11/30/2017 (1 Year Intervals)



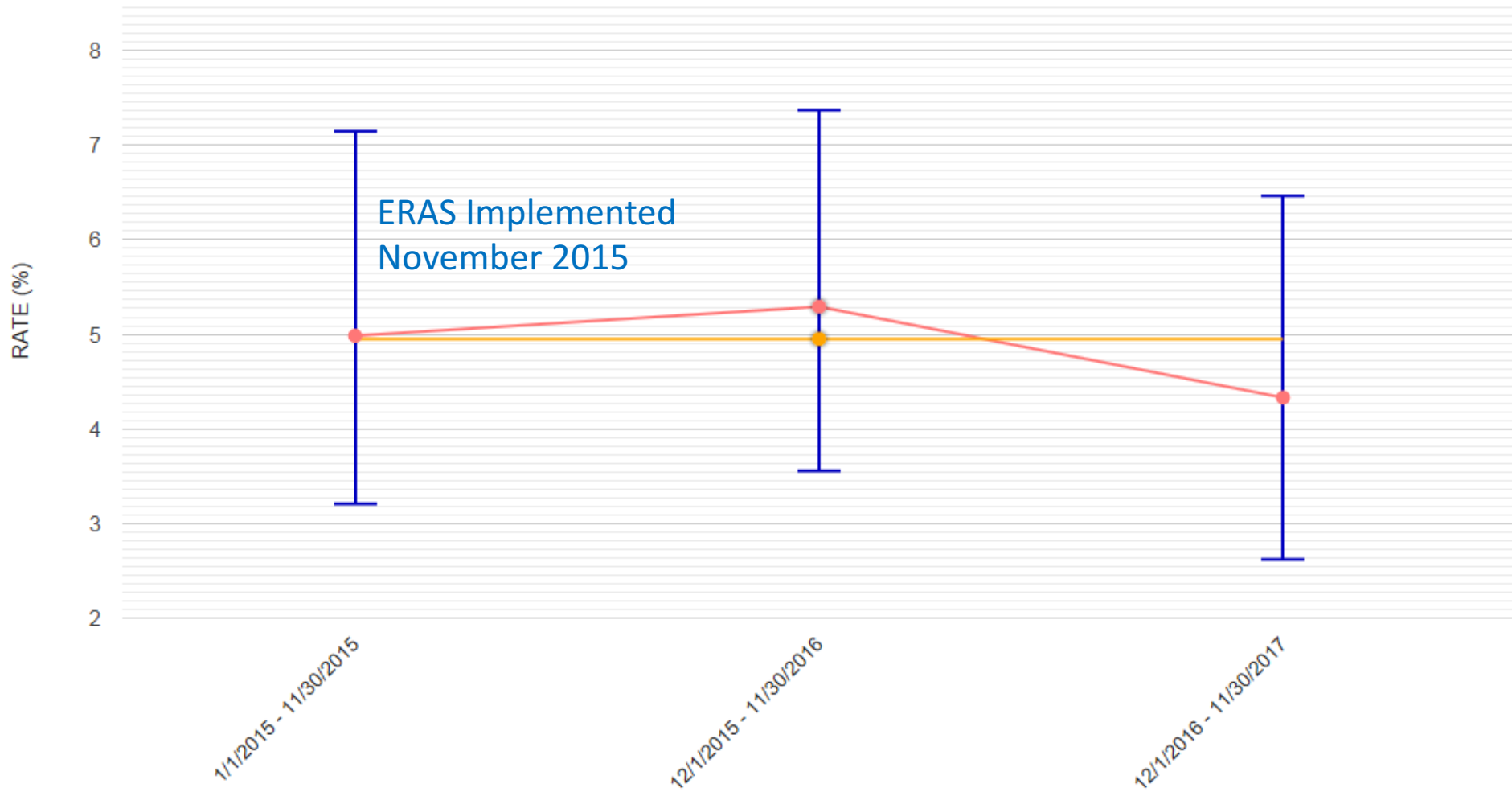
COLORECT Mortality

01/01/2015 - 11/30/2017 (1 Year Intervals)



COLORECT ROR

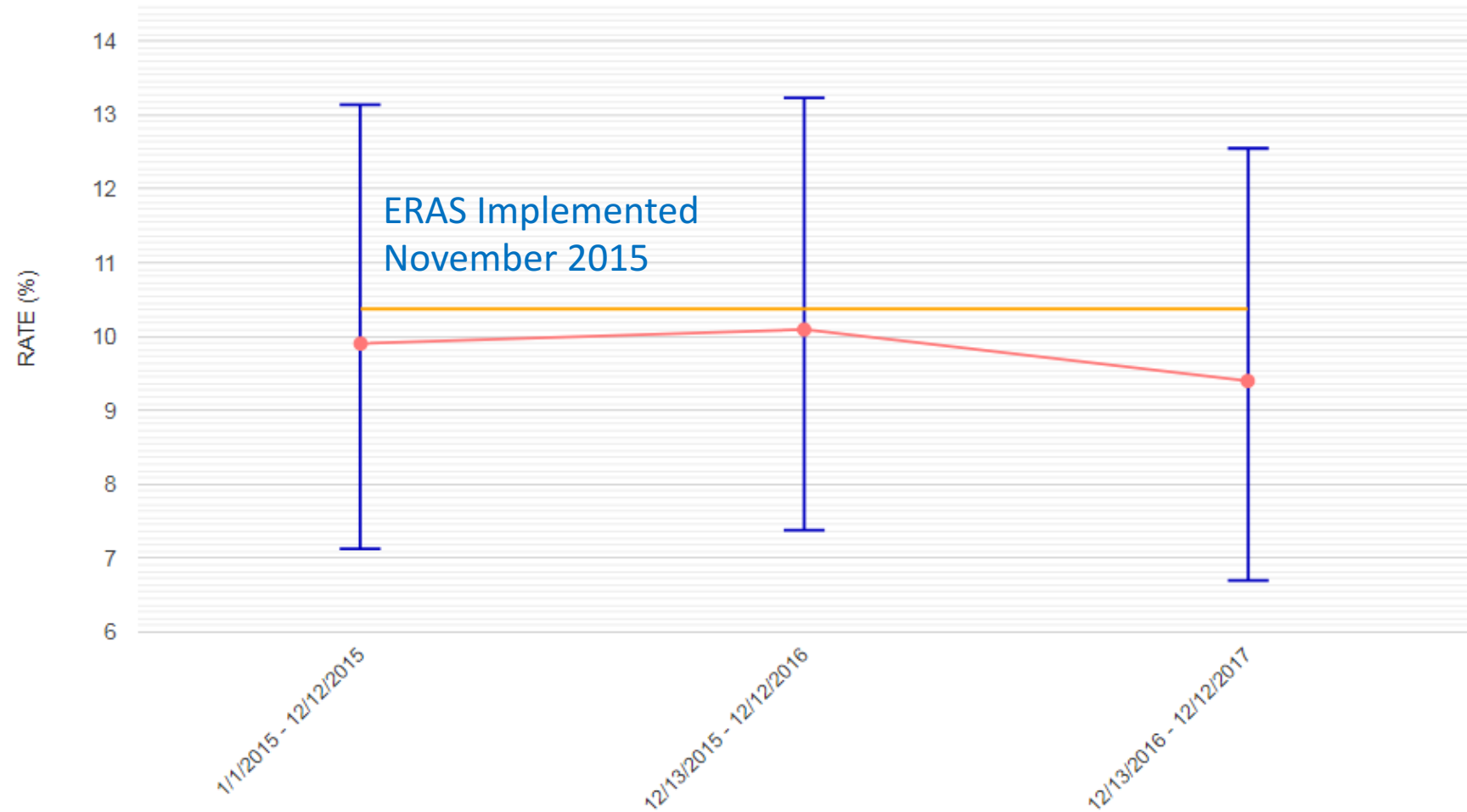
01/01/2015 - 11/30/2017 (1 Year Intervals)



NSQIP Colorectal Readmissions

COLORECT Readmission

01/01/2015 - 12/12/2017 (1 Year Intervals)



ERAS Summary

- ERAS is becoming a standard protocol for surgery patients
- Evidence demonstrates improved outcomes without ability to pinpoint most important components
- Many believe multimodal pain plan is key to the success of an ERAS protocol
- Requires cultural change, persistence and patience



Thank you!