Breathe Easy: Reducing Pulmonary Readmissions

Diane Priestley, BSN, RN, ACM; Sharon Bunn, MSN, RN, CNML; Donna Wilmoth, MSN, RN, NE-BC; Dennis Szurkus, MD, MBA, CPE, FACOG; and Catherine Smith, DNP, RN, CCNS, CCRN
Sentara Williamsburg Regional Medical Center, Williamsburg, VA
December 2019

MAGNET RECOGNIZED — AMERICAN NURSES CREDENTIALING CENTER

sentara nurse   **SENTARA®**

Background

Across the U.S. it is estimated that one out of every five Chronic Obstructive Pulmonary Disease (COPD) patients discharged from the hospital will be readmitted within 30 days.[1]

- An increased readmission rate carries negative quality, safety, and financial implications.
- Readmitted patients are at higher risk for morbidity and mortality.
- COPD patients are particularly vulnerable to readmission due to the chronic, recurring nature of the disease.

Problem

Throughout the first half of 2017, the COPD 30-day readmission rate at this 145-bed regional medical center was consistently above target and peaked at 20.6% in May 2017.

Higher than expected COPD readmissions were negatively impacting the hospital's overall readmission rate and more importantly, placed patients at increased risk for adverse outcomes.

Project Aim

The specific aim of this project was to utilize a Lean Six Sigma approach to identify, implement, and evaluate key strategies to improve care transitions and reduce readmissions for COPD patients.

GOAL STATEMENT: Decrease the 30-day COPD readmission rate to less than the threshold of 17.5% by the fourth quarter 2017 and sustain the reduction in 2018.

Design/Strategy

- Conduct a common-cause analysis to identify factors contributing to the increased 30-day COPD readmission rate.
- Form an interprofessional performance improvement team to address the increased 30-day COPD readmission rate.
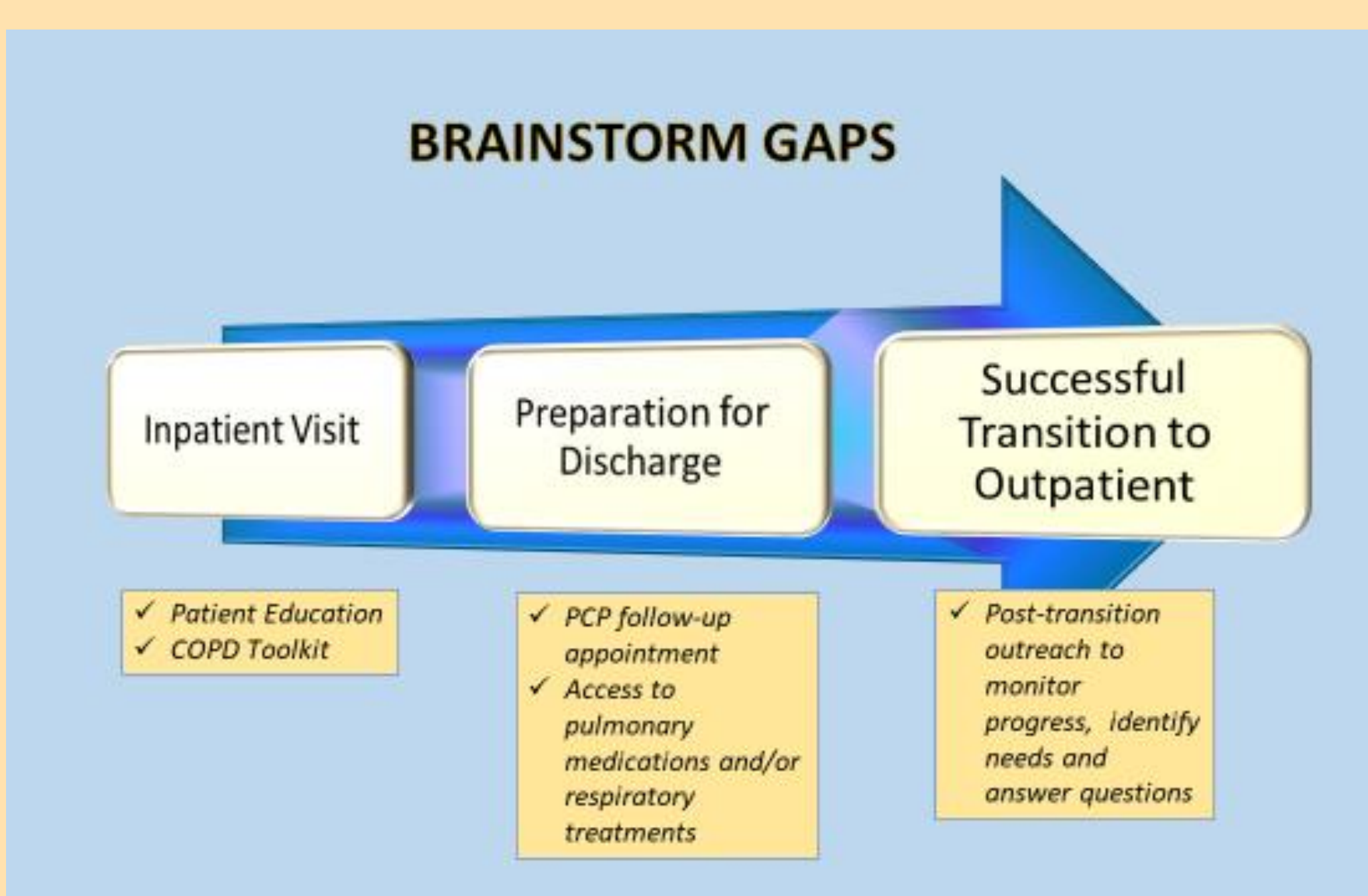

Changes Made

- **Pre-schedule Primary Care Physician (PCP) Follow-Up Appointments**
  - Schedule appointments prior to discharge in collaboration with patient
  - Leverage technology to optimize intervention
  - Readmission Risk/Hospital Score
  - Electronic Scheduling

- **Implement a Medication Assistance Program to support access to pulmonary medications**
  - Breathe Easy Program: Partner with a non-profit organization to assist patients who cannot afford their co-payment
  - Repackage and relabel Metered Dose Inhalers (MDI) for outpatient use prior to discharge

- **Optimize COPD Patient Education**
  - Reintroduce the revised "What You Need to Know About COPD" Patient Education Toolkit
  - Emphasize interdisciplinary patient education
  - Support the Pulmonary Disease Educator role

- **Enhance the automated, post-transition outreach program by adding a COPD diagnosis-specific call script**
  - Employ symptom-based questions utilizing best practice scripts to engage patients
  - Timely outreach/multiple calls
  - Tiered escalation process with prompt return calls to answer questions and resolve issues
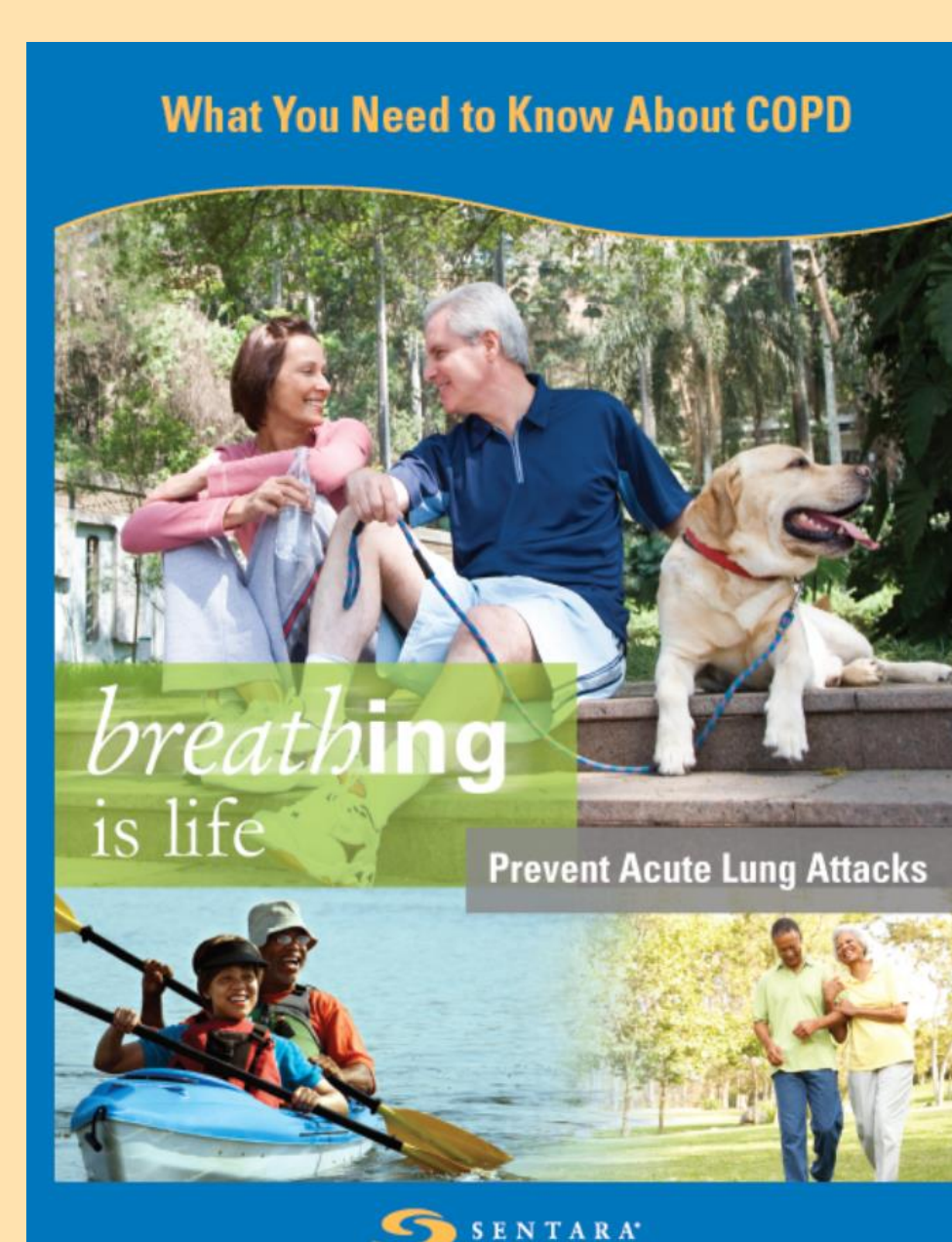
Results

The monthly 30-day COPD Readmission Rate decreased from a baseline 20.6% in May 2017 to 14.8% following the initial four months of implementation and remained below the threshold until August 2018. Project-related data collection ended in September 2018 due to a change in the reporting metric from a rolling 6-month to a rolling 12-month readmission rate.
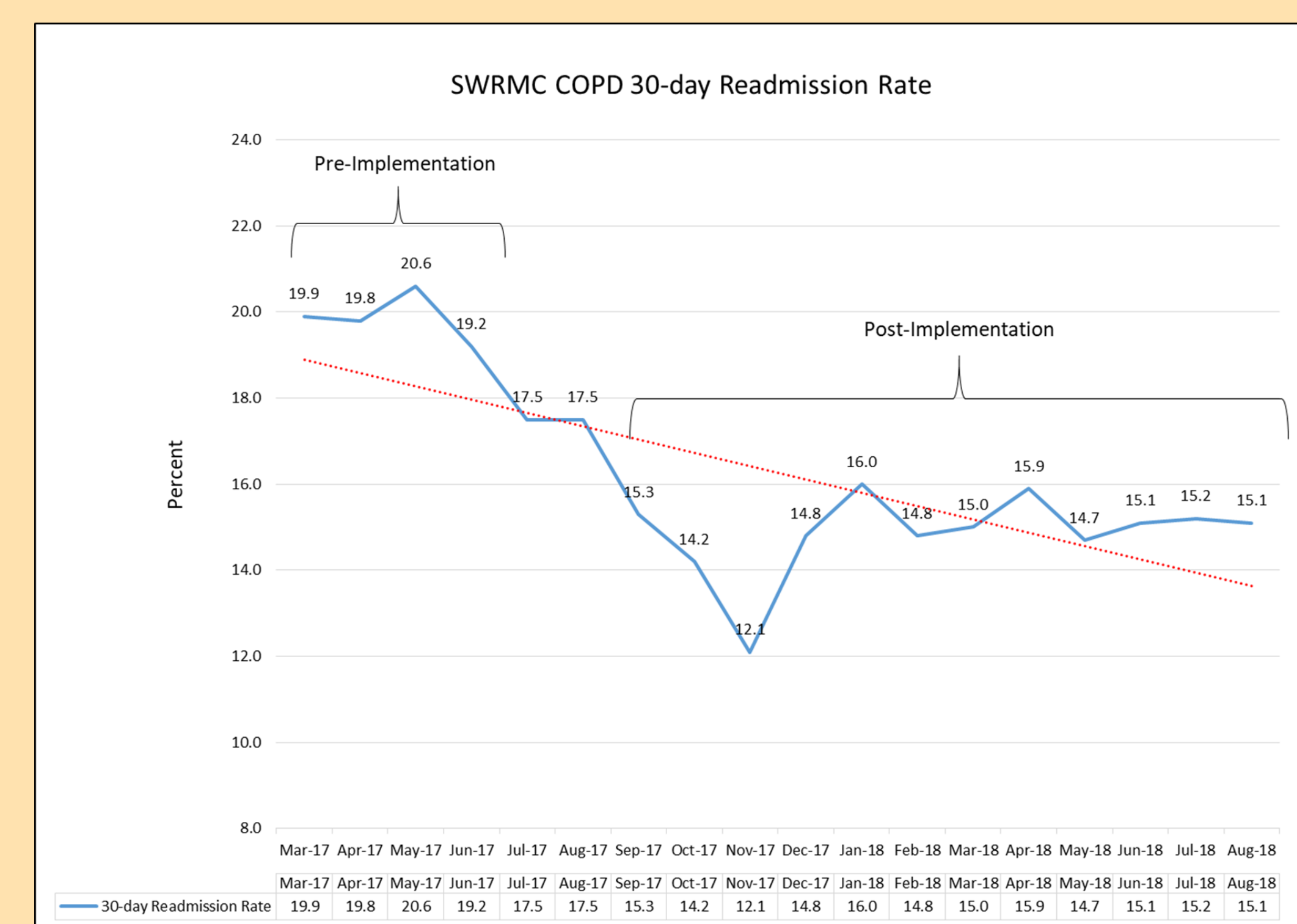
Implications

Implications associated with successful implementation of key strategies aimed at improving care transitions and reducing 30-day readmissions among COPD patients include:

- Reduction in risk for morbidity and mortality associated with unplanned readmission.
- Lower readmission rate translates to a reduction in avoidable hospital days for patients with COPD.
- Opportunity to extend strategies to other high-risk vulnerable populations.

Conclusion

Coupling Lean Six Sigma methodology with a targeted, interdisciplinary approach to improve care transitions led to a sustained reduction in COPD readmissions at this regional medical center.

Reference
[1]Shah et al. (2016). COPD Readmissions: Addressing COPD in the era of value-based health care. *Chest, 150*(4), 916-926.

Contact Information:
Diane Priestley, BSN, RN, ACM
Integrated Care Management, Team Coordinator, SWRMC
dmpriest@sentara.com