

PULMONARY DISEASE NAVIGATOR P2 - IMPLEMENTATION & OUTCOMES

Chandler Jones, MSHA, RRT, RRT-ACCS, RRT-NPS, CPFT, PDE

Pulmonary Disease Navigator and Respiratory Care Educator

2/12/2026



OBJECTIVES



Recap - Introduction



Metrics for Success



Literature Review



Current Program and Challenges



Selling it to C-Suite/Implementation



The So What

- Discussed the history, foundation, and purpose of navigation
 - Dr. Harold Freeman
 - Biopsychosocial models, patient-centered care, integrated care
 - To alleviate the stressors encountered while utilizing healthcare services by multiple means
- Looked at COPD as a major cause of death globally, as a financial siphon, and a chronic burden to quality of life
- Pulmonary navigation from my window, requirements, KSA and more
- Patient impact and future needs



RECAP

METRICS FOR SUCCESS

- Patient navigation aligns with current quality driven metrics by nature
 - Identify high-value, high-impact, evidence-based measures that promote better patient outcomes
 - Provide useful information for improvement, decision-making and payment.
 - Align measures across public and private payers to achieve congruence in the measures being used for quality improvement, transparency, and payment purposes.
- Major
 - Mortality
 - Readmissions
 - Efficiency
 - Effectiveness
 - Safety and Patient Centeredness
 - Minor
 - Appts
 - Facility referrals
 - Physician referrals
 - Medication recommendations

LOS

- Measures hospital efficiency, effectiveness, and costs (Stone et al., 2022).

- Reflects patient care quality and hospital resource utilization.

- Correlates with mortality, hospital-acquired conditions, and infection risks.

- Provides insight into factors influencing hospital stay duration (Definitive Healthcare, n.d.).

LOS

General Patient Navigation:

- Reduces LoS by **0.6–2.0%** in cardiovascular patients (Kwan et al., 2013).
- Lowers LoS by **2.8%** in hip/knee arthroplasty patients (Sawhney et al., 2021).
- Improves patient experience and perceived value (Bernardo et al., 2019; Joo & Liu, 2019; Yang et al., 2018).

Disease-Specific Navigation

- COPD nurse navigator programs significantly reduce total hospital days (Dajczman et al., 2012).
- A **Pulmonary Disease Navigator (PDN)** program reduced COPD LoS by **18%** at PIH Health (PIH Health, 2022).
- Respiratory therapist-led COPD case management cut **AECOPD LoS by 1.9 days** and saved **\$6,511 per admission** (Craddock et al., 2013).
- Disease-specific navigation, particularly **respiratory therapist-led programs**, yields **significant cost savings and efficiency gains**.



Mortality Rates and Readmissions in COPD



Quality of care deficiencies and high readmission rates contribute to increased mortality.



In-hospital mortality: 6.2% among 65,945 COPD patients (Waeijen-Smit et al., 2024).

2.0% at 30 days

6.4% at 90 days

Post-discharge mortality:

12.2% at 365 days



• Readmission rates:

19.8% at 30 days

26.5% at 90 days

38.2% at 365 days

MORE MORTALITY

Long-term mortality risk

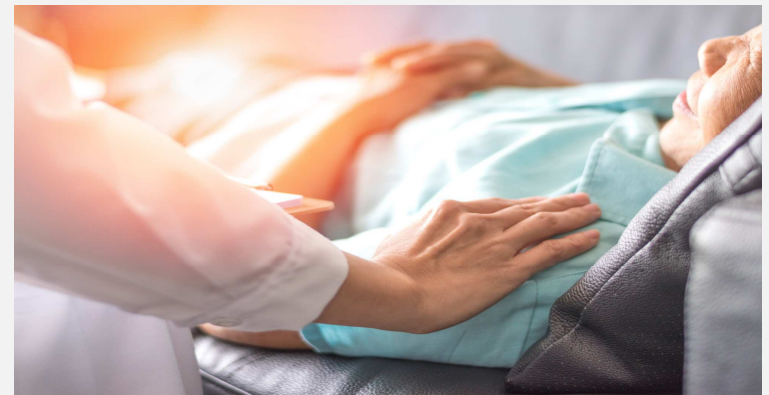
- **50%** of patients die within **5 years** after a COPD-related hospitalization (Agustí et al., 2023).
- **34.5% of patients die within 30 days of an exacerbation*** (Whittaker et al., 2022).
- **Untreated COPD** can reduce life expectancy by **5–14 years** (Temple Health, n.d.).
- **Severe COPD** results in **8–9 years of life lost** (Chen et al., 2020).

MORTALITY

The Navigator's Role in Mortality Reduction and End-of-Life (EOL) Care

- Navigation extends quality life by ensuring coordinated care, access to treatment, and medication adherence – secondarily, symptoms.
- Recognizing when curative care is no longer effective, navigators facilitate:
 - **Advanced care planning**
 - **Goals-of-care discussions**
 - **Palliative care referrals**

- **Navigation supports EOL care**, ensuring patients receive **compassionate and humanistic support**.
- **Hauser et al. (2011)**: Navigation enhances **EOL care optimization** through **early care planning**.
- **Fisher (2024); The Partnership Between Navigation and Palliative Care (2019)**: Early navigator involvement improves EOL decision-making.



- **COPD exacerbations are physically and mentally exhausting**, placing patients in **constant distress**.
- **Navigators with established patient rapport** are well-positioned to **guide patients and families through EOL care decisions**.

EFFICIENCY AND EFFECTIVENESS



Mortality, readmissions, and length of stay are directly influenced by EBP and guideline-directed medical therapy (GDMT).



• Patient navigation improves adherence to screening, diagnostics, and follow-up recommendations (County Health Rankings, 2016).



• Gaps exist between following recommendations and making them, transitioning from **lay navigation** to **clinical navigation**.



• Navigation is itself an EBP, but **medical EBP requires navigators to be well-versed in pharmacology, disease management, and research-based strategies.**

E/E

- Navigator-Led GDMT and Medication Adherence
 - Nurse navigator-led GDMT improves heart failure medication adherence (Desai et al., 2020).
 - A 3-month nurse navigator-led GDMT program resulted in:
 - Increased utilization and dosing of all GDMT categories
 - Lower rates of adverse events (Kirkner, 2019).
 - A pharmacist-led diabetes program integrating navigation improved medication adherence and education (Blood et al., 2024).



E/E

Respiratory Therapy and Pulmonary Disease Navigation

Respiratory therapists (RTs) are experts in optimizing cardiopulmonary therapy.

GOLD guidelines provide a structured approach to COPD management, aligning with RT expertise.

No direct literature links PDNs with pulmonary guideline adherence, but related disease successes suggest similar outcomes.



COST EFFECTIVENESS

- **Nurse Navigator Compensation (2025 Estimates):** Average pay: \$32–\$42/hour (ZipRecruiter, Glassdoor, Salary.com).
 - High end: Up to \$55/hour.
 - Estimated annual salary range: \$50k–\$65k.
- **Perceived Cost Barrier:**
 - C-suite executives may view this compensation as expensive.
 - Important to present ROI and cost savings to justify implementation.

- **Pilot Program with Two Full-Time Navigators:**
 - Reduced radiation therapy no-show rates, allowing for salary recovery within 3 months.
 - High-risk hospital admissions decreased by 50%. Readmissions and ER visits reduced by one-third.
 - *ROI Achieved: 5:1.*
- **Intermountain Southwest Cancer Center (2014):**
 - Annual Savings: \$277,953.
 - Increased Efficiency: Oncologists saved 24 minutes per visit by delegating educational sessions to navigators.
 - Enabled oncologists to see one additional patient per day.
 - Potential Annual Revenue Generation: **\$485,312**, well over the cost of two full-time navigators.
- **Henrico Doctors' Hospital:**
 - Reduced breast cancer patient outmigration from 240 to 28.
 - Generated an additional \$350,000 in revenue from billable services.
 - Enhanced patient trust and engagement, increasing contribution margin by \$3,000 per patient.

COPD Case Management by Respiratory Therapists (Craddock et al., 2013): Estimated Savings Per Admission: \$6,500.

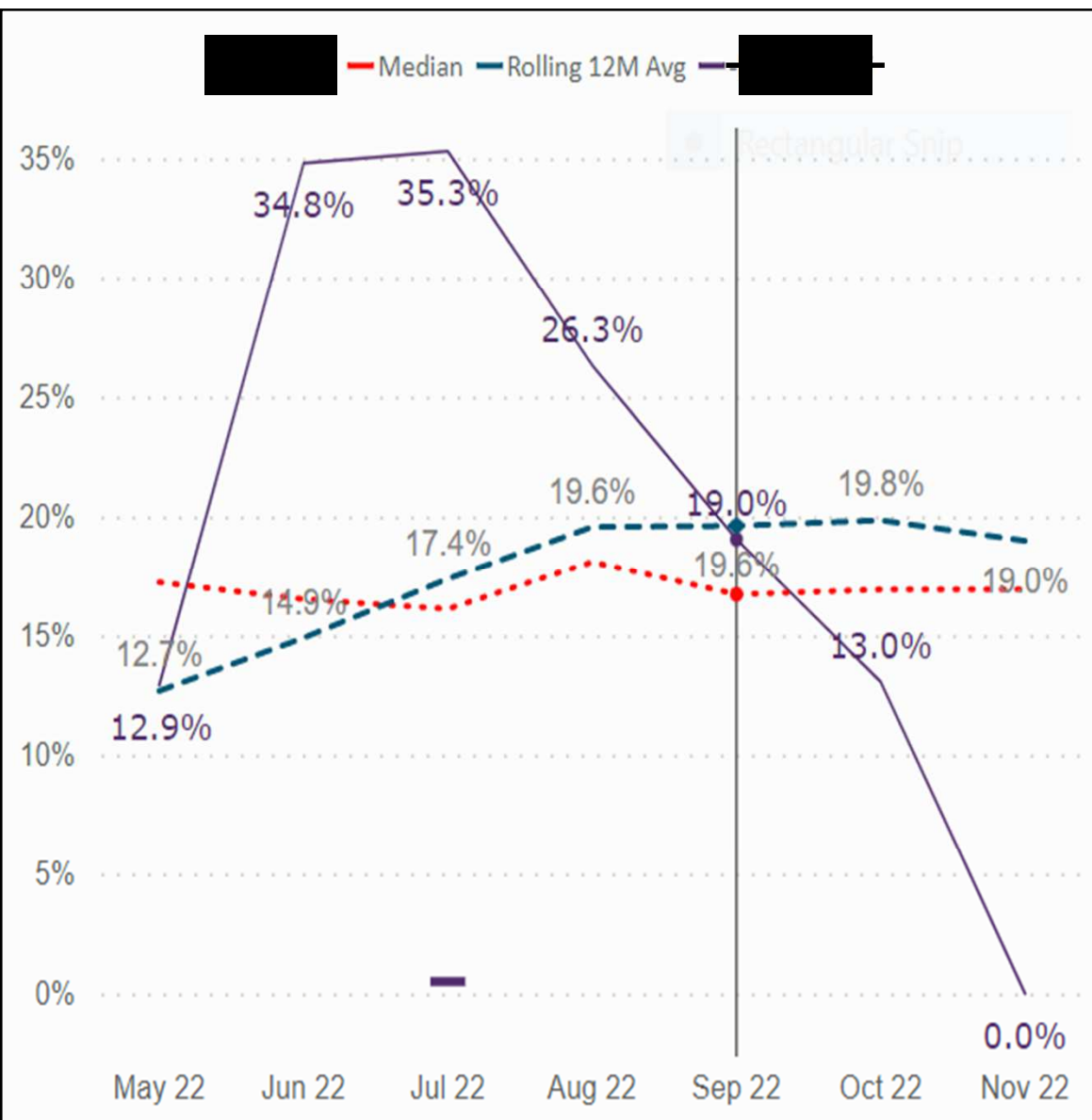
Total Cost Savings During Study Period: \$481,814.

Mechanisms of Savings:

Reduction in hospital readmissions.

Improved patient education and follow-up.

Enhanced chronic disease management.



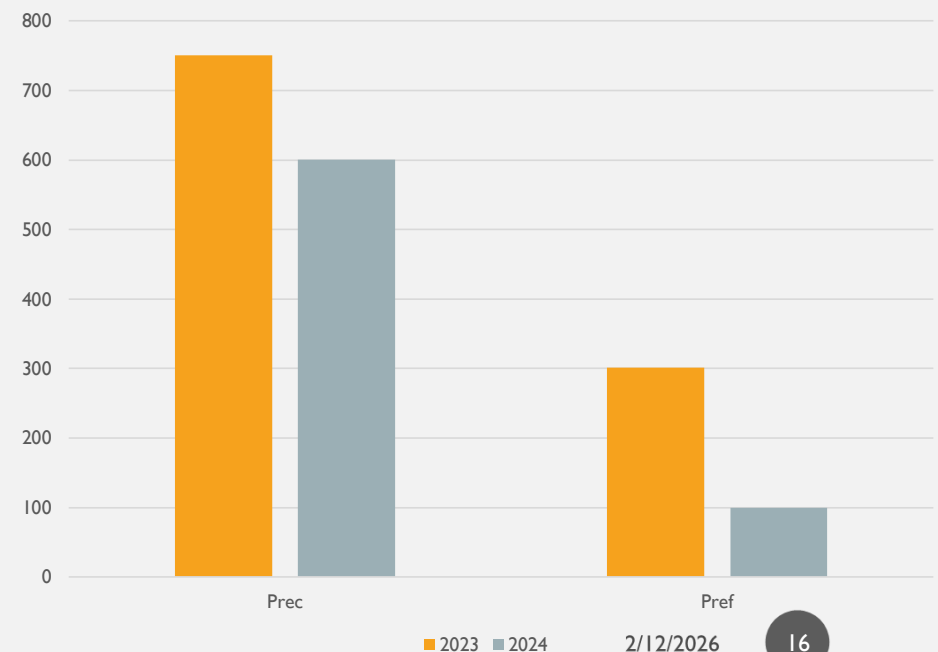
Facility		
Month	Readmits - Rate	Readmits/Discharges
May 22	12.90%	4/31
Jun 22	34.78%	8/23
Jul 22	35.29%	6/17
Aug 22	26.32%	5/19
Sep 22	19.05%	4/21
Oct 22	13.04%	3/23
Nov 22	0.00%	0/17

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MORTALITY AND EFFICIENCY

- Mortality – unexpected deaths
- 2023 – ~1004pts
 - ~751 had mention/recommendation for palliative/hospice care
 - ~301 had referrals
- 2024 – ~912pts
 - ~601
 - ~100 NEW referrals
- July-Nov – Recommendations to CBT
 - ~75 w ~30 referrals

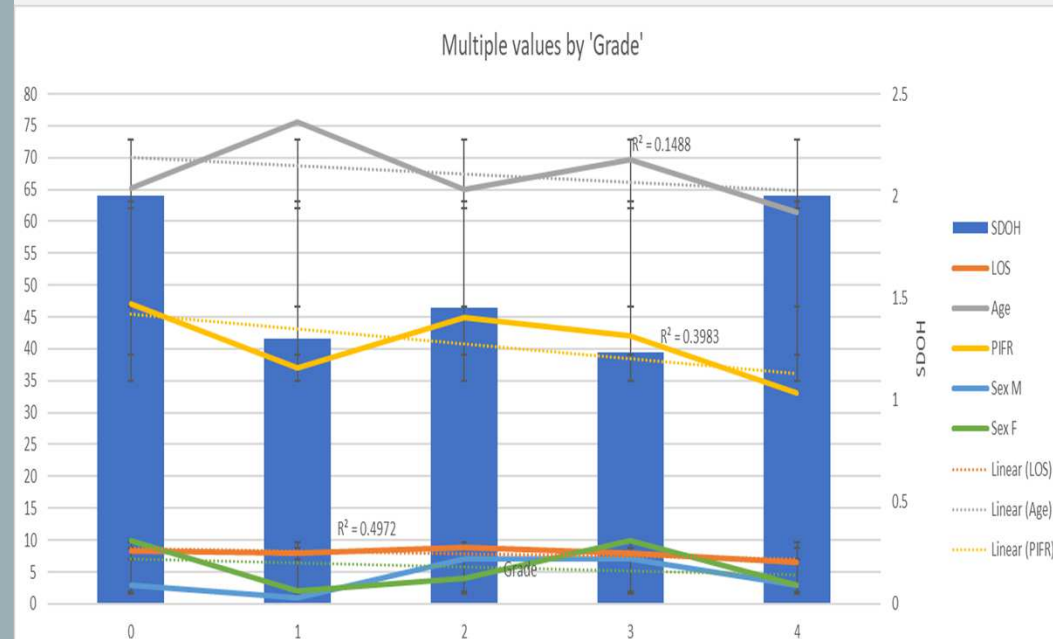
- Efficiency – LOS
- Average for COPD dx code – 4.08d
- LOS for all those w PDN – 3.99d
- LOS excluding outliers (≥ 10 days) w PDN – 3.92d

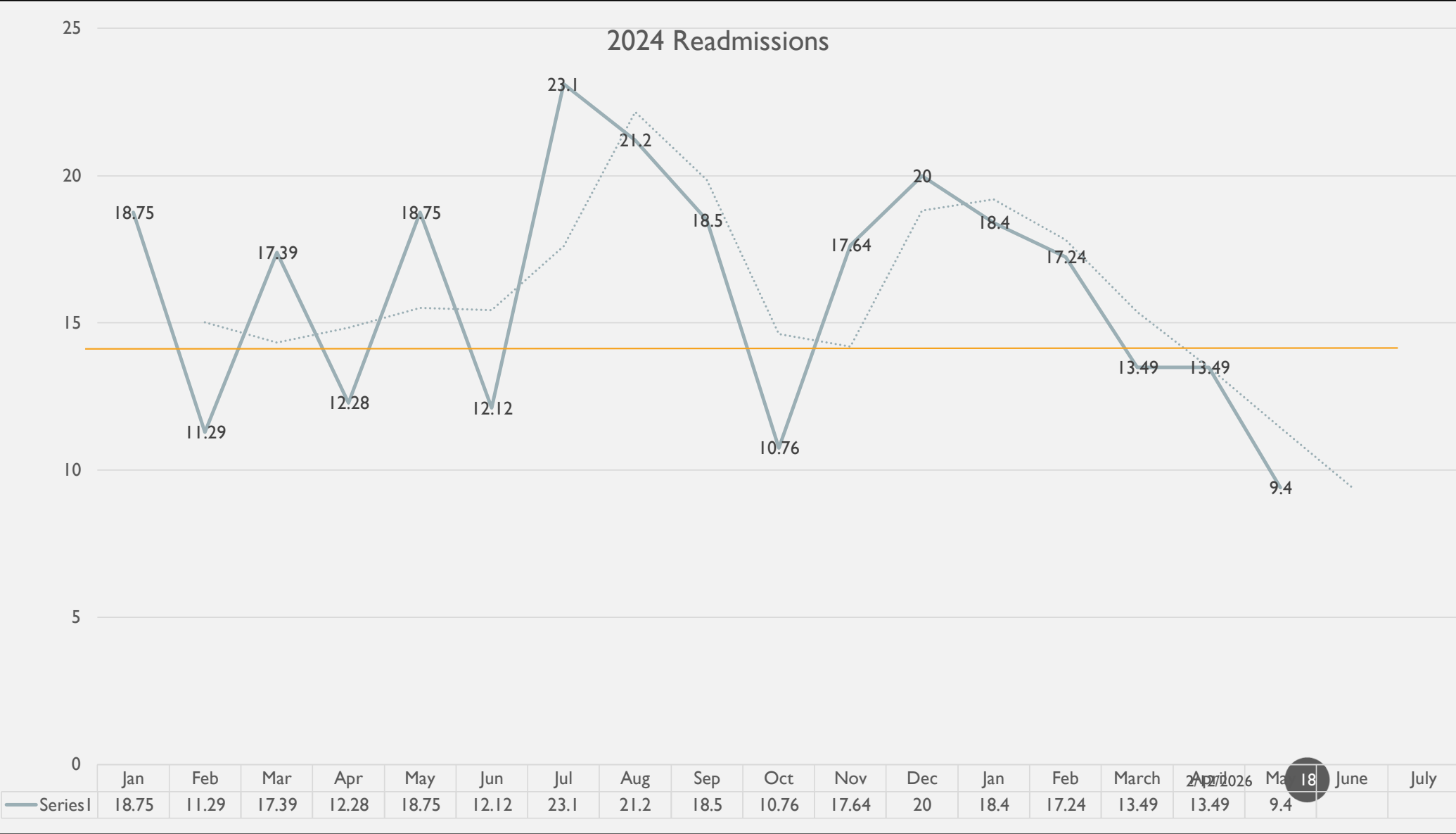


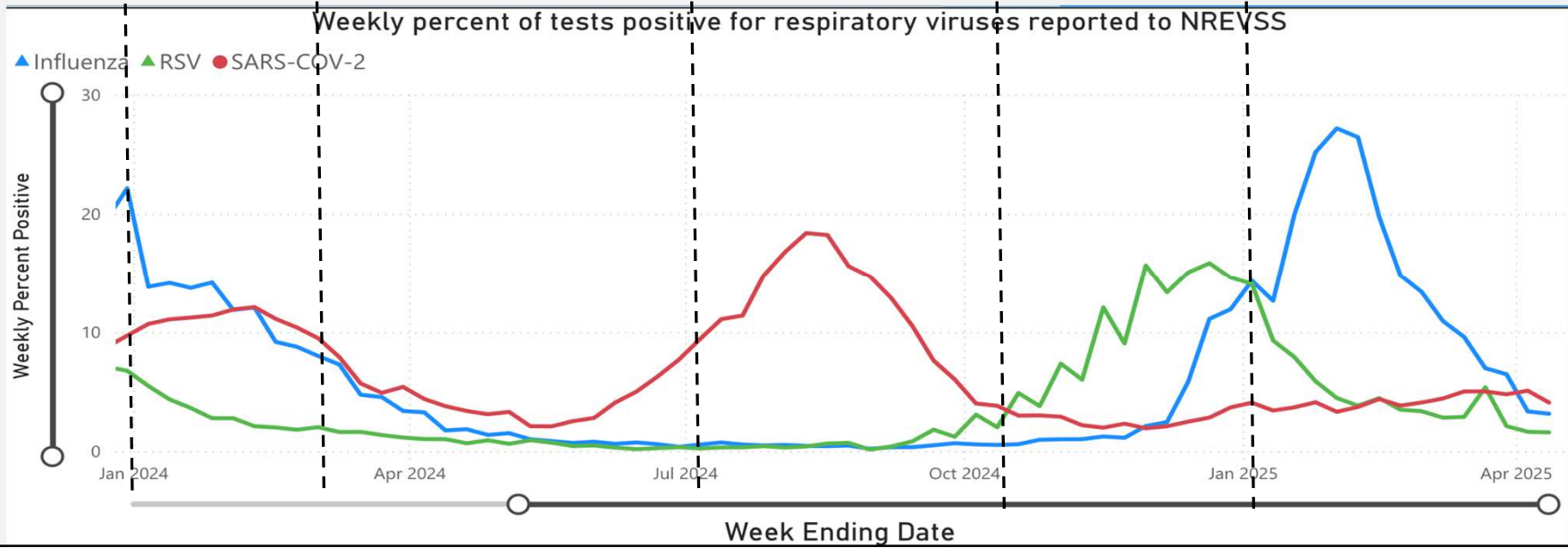
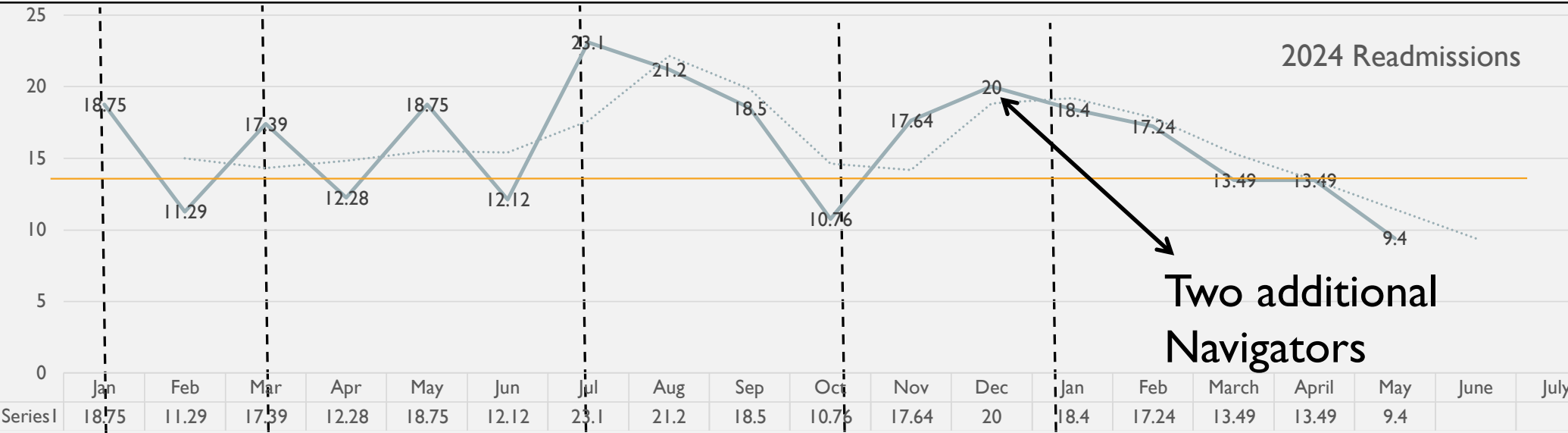
EFFECTIVENESS

- Effectiveness – GDMT/GOLD
- Tyto – Digital health initiative
- Documented GDMT or why not
- PIFR – Pilot study organized to guide inhaler selection and proper use. Up to 20% medication changes.
- COPD/CHF Team – SBAR format with pulmonary NICS director, pulmonologist, palliative care APP and navigator, pharmacy.
- Digital Inhalers/Spiro - upcoming
- Mindfulness Practices - upcoming

- A total of 73.68% were found to fall **below *optimal*** flow regarding their current inhaled medication therapy. 26.32% were on appropriate inhaled medical therapy.







Region 4

A CASE OF CAREGIVER FATIGUE

- **Patient Background:** 58-year-old woman with pneumonia, presumed COPD (no PFTs), 27-year history of tobacco/marijuana use.
 - No PCP or pulmonologist, uninsured, food insecure, financially strained due to caregiving.
- **Navigator Intervention:** Coordinated insurance enrollment, primary care, pulmonology referrals, and smoking cessation.
 - Connected patient with food resources and financial aid.
 - Documented intervention via EMR.
- **Diagnosis & Treatment:** *Spirometry* suggested mild restrictive lung disease; lung CT revealed Grade 2 NSCLC.
 - Early detection enabled immediate oncology referral and treatment, now in remission.
- **Quality of Life Improvements:** Improved lung function, reduced respiratory symptoms, enhanced daily living conditions.
 - Reduced stress through access to resources and smoking cessation.
- **Cost-Efficiency:** Early lung cancer treatment: \$20,000–\$30,000 vs. \$100,000+ for late-stage treatment.
 - Avoided COPD (even if restrictive am I right?) readmission savings: \$6,000–\$15,000 per event.
 - Estimated savings from this intervention: \$13,000 or more.
- **Broader Implications:** One successful intervention potentially covered ¼ of the PDN's salary.
 - Effective navigation can significantly reduce healthcare costs and improve patient outcomes.

IMPLEMENT IT ALREADY

- Unlike revenue-generating departments that rely on **direct arbitrage** (e.g., charging more for a service than it costs to deliver), the Pulmonary Disease Navigator (PDN) role operates within a **coordination-of-care framework** that delivers **value through cost avoidance and improved efficiency** across the continuum of care.
- PDN is an investment in care optimization that yields a return by:
 - **Reducing potentially preventable readmissions** (especially 30-day COPD and pneumonia, which are tied to CMS penalties)
 - **Improving length-of-stay efficiency** by minimizing discharge delays
 - **Enhancing transitional care**, leading to fewer ED revisits and readmissions
 - **Preventing medication errors and increasing discharge medication adherence**, especially for high-cost inhalers and specialty drugs
 - **Avoiding downstream costs** by identifying and mitigating social determinants of health (SDOH) that drive acute utilization.
- This is akin to “**back-end ROI**”: the financial gain is realized not through billing, but through **cost containment, penalty avoidance, and value-based care performance metrics**.

C-SUITE

CFO Perspective: The PDN's impact is measurable through lower Medicare spend per beneficiary, improved risk-adjusted outcomes, and avoidance of CMS penalties—critical in value-based reimbursement models.

COO Perspective: The role facilitates smoother throughput, reduces length of stay, and improves interdepartmental workflows (nursing, case management, pharmacy).

CMO/CNO Perspective: The PDN ensures clinical quality, guideline adherence, and patient satisfaction, directly impacting HCAHPS scores and safety metrics.

Population Health/Strategy Leaders: PDNs proactively manage high-utilizers, enabling health systems to improve performance in ACO, MSSP, and bundled payment models.

FUNDING OF THE PROGRAM AND BACK-END SAVINGS

- Like coordination-type roles, PDN accounts for costs on the back rather than direct arbitrage
- Readmission costs around 15k
- Misuse
- Waste
- Trial and error
- Evidence-based driven approaches to care

- Grants
- Further segmentation of specific disease population for even greater savings.



- Step-wise growth with proven efficacy

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- Pulmonary Disease Navigation is not merely an emerging field—it is a **necessary response** to a pressing healthcare crisis. COPD mortality is rising, and fragmented care remains a critical vulnerability. The PDN model fills these gaps by:
 - Focusing on individualized, evidence-driven interventions.
 - Bridging acute, post-acute, and outpatient care.
 - Achieving measurable outcomes in quality, safety, efficiency, and equity.
- As the healthcare system shifts toward value-based care, **PDNs represent a strategic advantage**: improving outcomes while reducing unnecessary costs and care fragmentation. The model is **scalable**, adaptable beyond COPD, and can be expanded to other complex diseases where navigation and continuity are lacking.
- The PDN role, particularly when led by respiratory therapists, is a cost-effective, evidence-informed solution to the COPD epidemic. It honors the philosophical roots of patient-centered care while demonstrating measurable, data-supported improvements in clinical outcomes. Institutions that adopt and refine the PDN model position themselves at the forefront of compassionate, accountable, and forward-thinking healthcare delivery.

SO WHAT?

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THANK YOU



Chandler Jones, MSHA, RRT, RRT-ACCS, RRT-NPS, CPFT, PDE

Pulmonary Disease Navigator and Adjunct
Professor for Respiratory Care | #atthetopofyourl...

