

Bringing Balance to the Respiratory Force



Respiratory Associates

AARC Approved Respiratory
Continuing Education



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Disclaimer

Speaker Disclosure

Matt Pavlichko is an employee of Vapotherm.

Matt Pavlichko has a fiduciary relationship with AARC, PSRC, and RT Sidebar Podcast

Disclaimer

Vapotherm's high velocity therapy is a tool for treating respiratory distress. The following slides convey study results in relation to the use of high velocity therapy, but individual results may vary. For spontaneously breathing patients. High velocity therapy does not provide total ventilatory requirements of the patient. It is not a ventilator.

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Practitioners should refer to the full indications for use and operating instructions of any products referenced before use.

Caution: U.S. Federal law restricts this device to sale by or on the order of a physician.

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Performance Objectives

1. Identify how value is measured by both hospital executives and bedside clinicians.
2. Describe the “Value Equation”; how benefit and cost are inversely related.
3. Identify mutual opportunities to increase the RT value.

Summary

- The US healthcare system is struggling, and no one understands this better than bedside clinicians (especially RTs). CMS, ED boarding, budgets, hospital closures, clinician burnout, etc., are daily newspaper headlines. Traditionally, cutting costs and staff reductions are the tactics used when healthcare is uncertain, yet this jeopardizes patient care. Is it possible to improve patient care at a lower cost? Can RTs provide a solution to the healthcare crisis?

Healthcare is Broken

21 hospital closures in 2025

The healthcare landscape continues to change as hospitals and emergency departments face mounting challenges in 2025. Following a trend of 25 hospital [closures](#) reported on by *Becker's* in 2024, many facilities are being forced to close their doors due to changing community needs, rising operational costs and evolving care models.

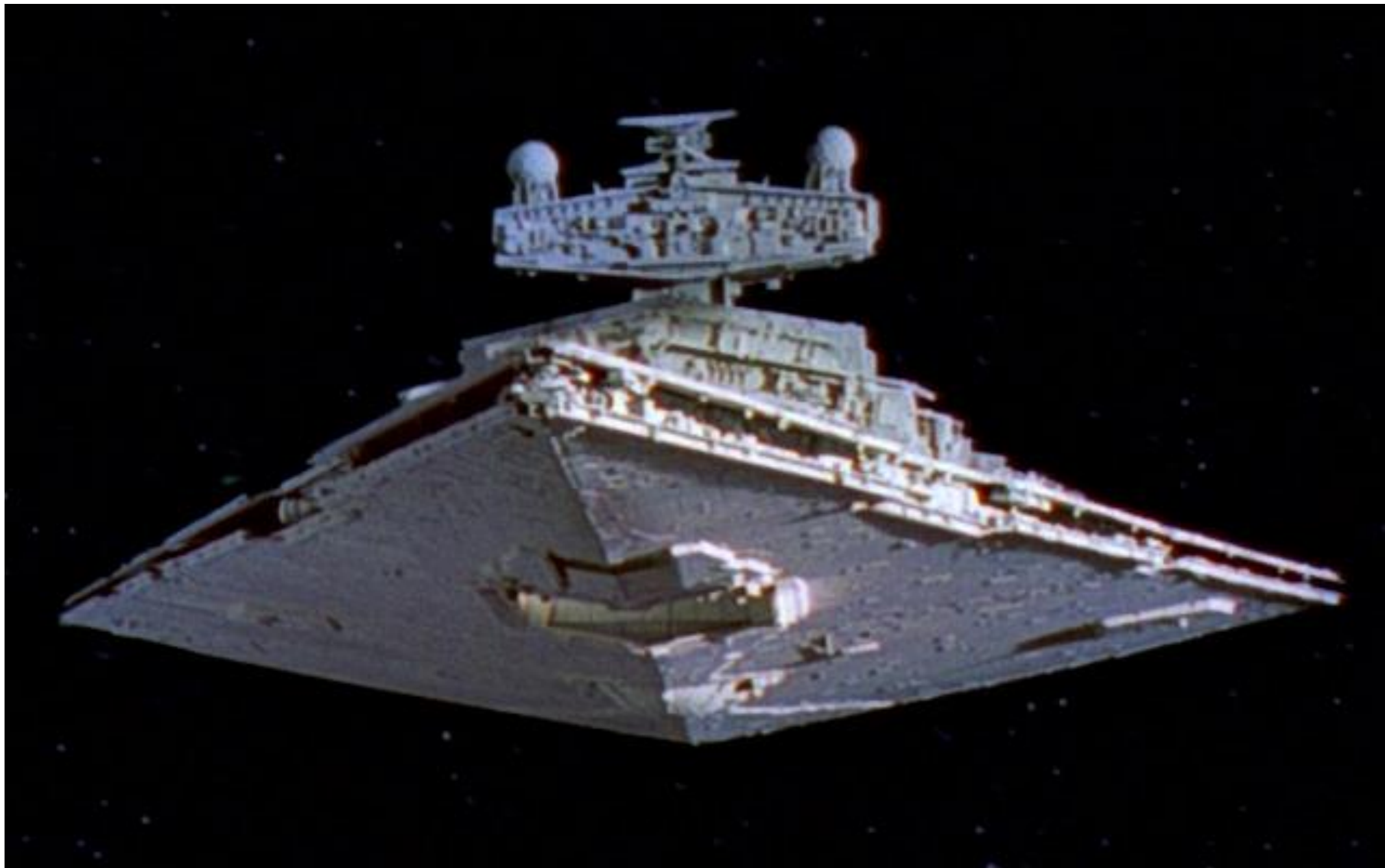
70 hospitals, health systems cutting jobs

Advertisement

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HEALTHCARE**



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Who is fully
staffed?



Where are the RTs?



Let's be honest with ourselves...

- ▶ MoreRTs and BeAnRT are good programs, but...
- ▶ If we fill all of the RT schools today, we won't feel relief for at least 4 years
- ▶ Therapists are tired, burned out, and don't recommend to young people to be a therapist.
- ▶ **Hypothesis:** RTs are burned out because they are performing useless tasks that contribute to poor staffing levels and negative perceptions of management. If this is not fixed soon, hospitals will find ways to function without RTs.



Burnout is escalating³

- 72% are feeling the effects

- 93% say burnout a major issue

Matt's Math:



16 hospitals

76 open positions

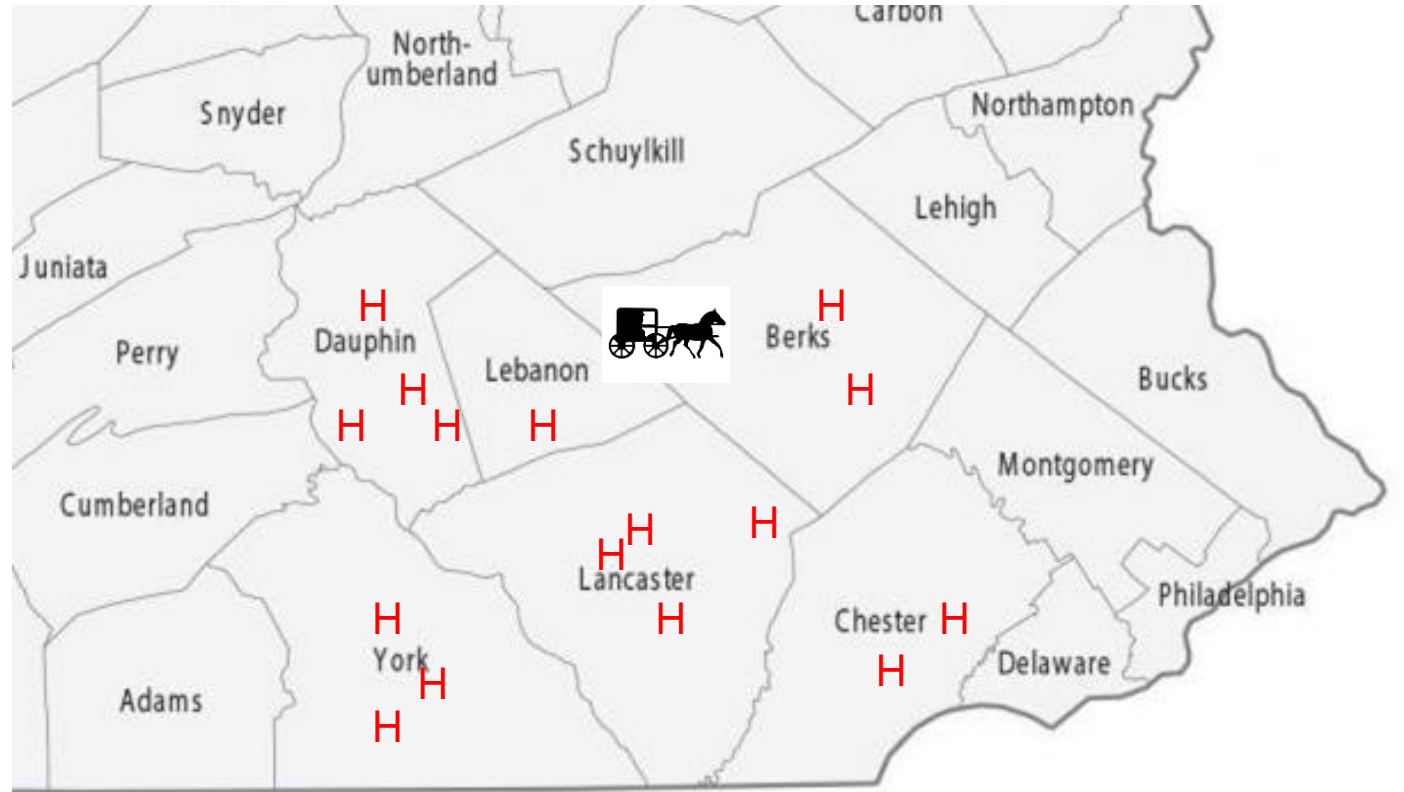
5 schools

35 grads

17 go to Philly

18 left

4 years to recover!!!



Adding RTs alone is not cutting it

| | | | |
|---------------------|--------------|--------------|--|
| 2021 AARC HR Survey | 0 | | |
| 2022 | 9140 | | |
| 2023 | 18280 | | |
| 2024 | 27420 | | |
| 2025 | 36560 | | |
| 2026 | 45700 | | |
| 2027 | 54840 | | |
| 2028 | 63980 | | |
| 2029 | 73120 | | |
| 2030 | 82260 | 92000 = Goal | |



Participation is down in educational programs.¹

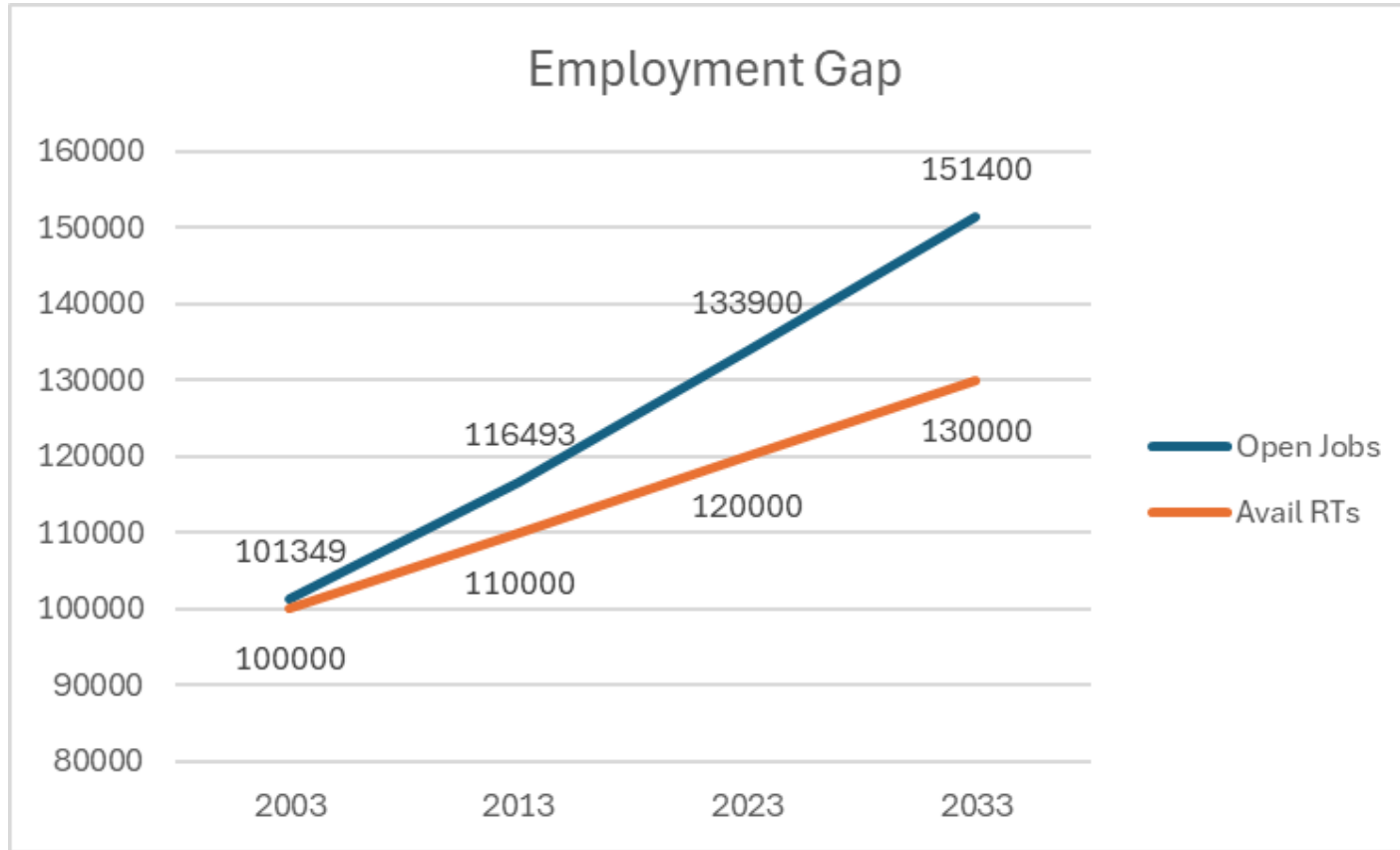
- 27% decrease in enrollment since 2010
- Only 10% of programs at capacity



Retirements of RTs are outpacing new growth.²

- More than 92,000 RTs will leave by 2030
- Need to retain more than 155,000 RTs

***based on 457 entry to practice programs graduating 20 RTs annually each**



21,400 FTE Gap
44,512,000 Hours
of Work (estimated)

72-93% RTs
suffering from
Burnout*

MoreRTs.com

Miller, AG, et.al. Respiratory Care Journal

- <https://doi.org/10.4187/respcare.10632>
- <https://doi.org/10.4187/respcare.09283>



RTs
Supply

RT Work
Demand



Tony Pulido - “Only 2 ways to fix a staffing problem, more RTs or less work”

**“Don’t add to your
plate unless you
give some to the
dog first”** tm pending



“The Mucomyst Effect” – Trademark Pending

Routine use of aerosolized N-acetylcysteine to improve airway clearance
is not recommended. – CPG **2015**

Matt's Math:



- ▶ “Hospital A”
 - ▶ 500 bed hospital + 100 women and children’s beds
 - ▶ 68ish FTEs
 - ▶ Performs 27 mucomyst aerosols per day
-
- ▶ 15 minutes per treatment
 - ▶ 2372.5 hours per year



- ▶ 1.23 FTEs wasted



| Hospital A | Nationalized |
|----------------------------|---------------------|
| 500 beds | 916752 beds |
| 27 Inhaled Mucomyst Tx/Day | 49504 Tx/Day |
| 6.75 hours spent | 12376 hours spent |
| \$226.87 salary/day | \$419670 salary/day |
| 1.23 worked FTEs | 2259 worked FTEs |

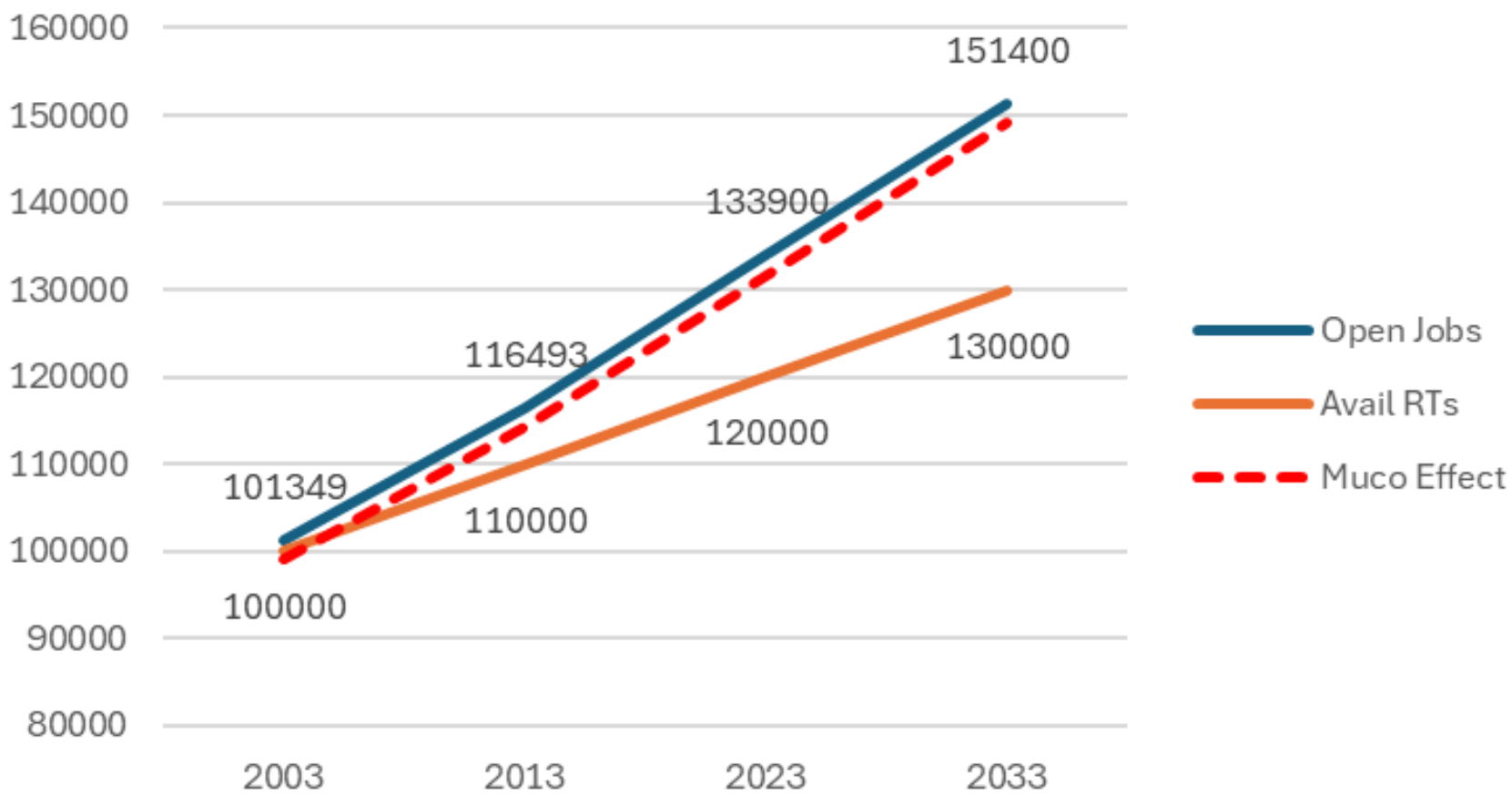
| Annualized (full removal) | Annualized (50% removal) |
|--------------------------------|-------------------------------|
| 12376 hours spent | 6188 hours spent/day |
| 2259 worked FTEs saved | 1129 worked FTEs saved |
| \$33.91 per hour | \$33.91 per hour |
| \$153,179,608.40 waste savings | \$76,589,804.20 waste savings |

*Worked FTEs = hours spent x 365/2000 hours (vacation)

**Does not include employee benefits

***Does not include medication, equipment, and supply labor

Employment Gap



Imagine if we eliminated all waste?

- ▶ IPPB
- ▶ Mist Tents and Oxyhoods
- ▶ Aerosolized NAC
- ▶ Dornase Alpha for non-CF patients
- ▶ Blow-by treatments
- ▶ Unnecessary inhaled beta-agonists
 - Tracheomalacia
 - Viral Illness
 - I smoked once
 - Unconfirmed reactive airways disease
 - Xopenex
- ▶ Routine Incentive Spirometry
- ▶ Chest Physiotherapy
- ▶ Unnecessary arterial blood gas sampling
- ▶ Duplicative charting

Adapted from Rubin, B. & Haynes J. Myths, Misunderstandings, and Dogma in Respiratory Care. *Resp Care*. **2012**; 57, 8

How do you do it?



RTs are Leaders

We can fix any problem!

We are innovative!

10 CHARACTERISTICS OF A

GOOD LEADER

1. INTEGRITY
2. DELEGATION
3. COMMUNICATION
4. SELF-AWARENESS
5. GRATITUDE
6. LEARNING AGILITY
7. INFLUENCE
8. EMPATHY
9. COURAGE
10. RESPECT



Center for Creative Leadership

John Maxwell - “All things can be improved”



Value = Benefit/Cost

But the “Suits” always say no!



Measure of Value

C-Suite (Suits)

- Cost
- Productivity
- Metrics
- Risk Mitigation
- Compliance
- Growth
- Mission
- Long-Term
- Sustainability



Vs

Value
Fairness
=
Quality
Safety
=
=
All-time
All-time



Clinicians/RTs (Scrubs)

- Benefit
- Workload
- Outcome
 - Care
- Beneficence
- Communities
 - Patients
- Short-Term
 - Survival

Shared Values

- Respected
- Contributor
- Effective
- Proud



Increase the benefit will decrease the cost

LOS

ED Throughput

Ventilator Liberation

ICU Throughput

Dec. HAI

Dec. HAPI

Readmissions

Focus on health

Ambulation

A-F bundle

Pulmonary Rehab/Navigation



The Challenge

RTs

What could you change to improve benefit or decrease cost?

Administrators

Make their suggestions a reality
SAY YES!!!!!!!!!!!!!!!

RT KOLs

Create the Evidence
Teach the Implementation

Question the
Norm!



RT SIDEBAR

CHAMPION EMPOWER INFLUENCE

Practice Evidence Based Medicine and Evidence Based Leadership

RESPIRATORY CARE

search

Home Content Authors Reviewers CRCE Open Forum Podcast Videos

Editorial | Editor's Choice

Optimizing Respiratory Therapy Resources by De-Implementing Low-Value Ca

Kellianne Fleming, Jessica L George, Sarah J Bazalak, Julie A Roeske, Adam D Biggs, Curtie M Landry, Randolph J Lipohik and Jonathon D Truitt
Respiratory Care May 2023, 68 (5) 559-564; DOI: <https://doi.org/10.4187/respcare.10712>

Article Figures & Data Info & Metrics References P

Abstract

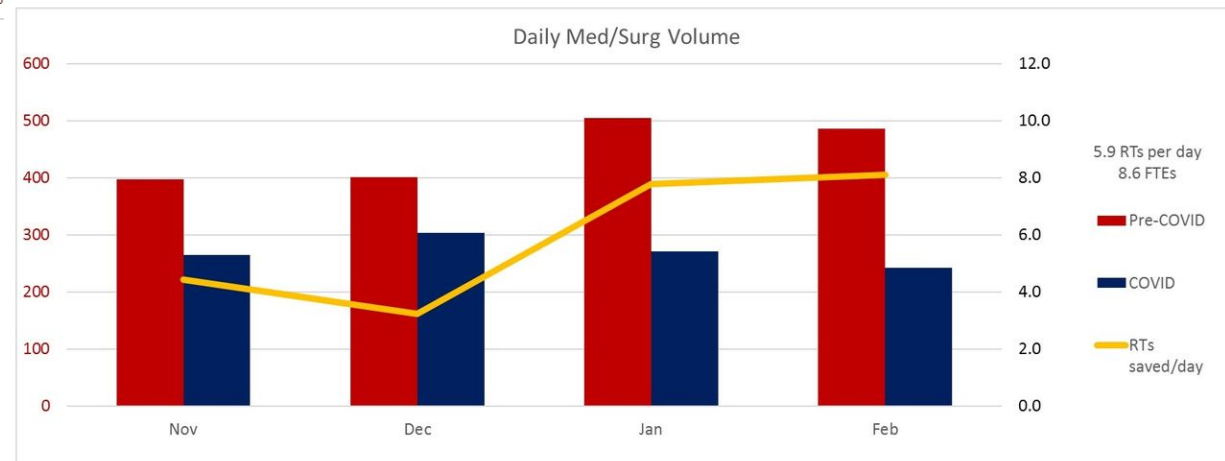
BACKGROUND: Our institution was experiencing a respiratory therapy staffing crisis during the COVID-19 pandemic, in part due to excessive workload. We identified an opportunity to reduce burden by limiting use of 3% hypertonic saline and/or N-acetylcysteine nebulizer therapies (3%HTS/NAC).

METHODS: Leveraging the science of de-implementation, we established a policy empowering

Evidence-Based Leadership: The Foundation of a Culture of Quality

What is Evidence-Based Leadership?

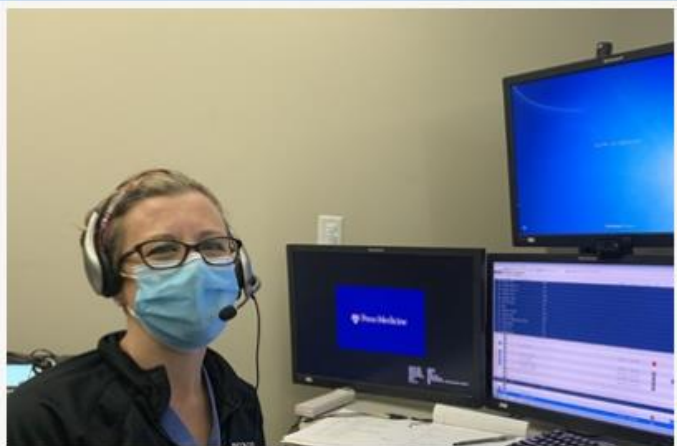
Evidence-Based LeadershipSM is an approach to leadership modeled after the concept of evidence-based medicine and is designed to hardwire the behaviors that have been shown through evidence to have the greatest impact on patient outcomes. The Evidence-Based Leadership framework serves two purposes: It provides the structure for hardwiring behaviors, and it solidifies a culture of accountability.



Innovated Value

Penn State Health Adds Respiratory Therapy to Virtual Intensive Care

May 16, 2023 | ICU & Ventilation, Patient Monitoring | ★★★★★



Respiratory therapist Amanda Shuttleworth at her E-ICU station

Is the COPD Navigator Role Right for You?



An RT Navigator is Navigating the Way

Jeana Franco, RRT, had heard of "nurse navigators" before, but the concept of an "RT navigator" had never occurred to her. So when she was approached by her director at Hoag Hospital Presbyterian in Beach, CA, in March of 2014 about starting a pilot program for COPD disease management that would utilize an RT navigator she was more than a little

excited. "The role of an RT navigator was very exciting so I accepted the challenge," says the AARC member. Six months later the pilot program had met its goal of reducing hospital readmissions and the hospital approved a full-time respiratory disease management navigator position. She was hired and got it, and she's been working to bring enhanced services to COPD patients at the hospital ever since.



Jeana Franco



Mindy Conklin · 1st

Advanced Practice Respiratory Therapist MRT, RRT, RCP

Greenfield, Ohio, United States · [Contact info](#)

JUST
breathe

**Where else can
RTs provide
better value?**

Matt's Math



- ▶ Large Academic Hospital
 - ▶ Running 30 Vapotherm in ICU per day
 - ▶ Move 10 to the med-surg floors
 - ▶ \$500/day/patient
 - ▶ 3650 ICU days saved
 - ▶ *“But my hospital doesn’t allow Vapotherm or HFNC on the Floor.” – Anonymous MD 9/8/25*
- ▶ \$1.8 Million

- ▶ Jackson, J., Spilman S., Kingery L., et. al. (2021). Implementation of High-Flow Nasal Cannula Therapy Outside the Intensive Care Setting. *Respiratory Care Journal*, 66(3) 357-365. doi: 10.4187/respcare.07960
- ▶ Brenner, C., Good, J., Pavlichko, H., McDonald, S., Gerich, K., Bergeski, A., & Pavlichko, M.S. (2024). A retrospective validation of the effective and safe treatment of patients on general care wards with high velocity nasal insufflation therapy utilizing prognostic risk scores during COVID-19. *Journal of Mechanical Ventilation*. 5(2) 57-67.

Further Value Outside RT Traditional Roles

- OR/PACU RTs
- Trach Educators
- Virtual Pulmonary Rehab
- Virtual Critical Care
- Critical Care Navigation
- Awake and Walking ICU - <https://daytonicuconsulting.com/about/>
- NICU III Nitric
- Interventional pulmonology
- EIT
- Lung US
- Research, Quality, Safety, EPIC – oh my!

What else???

RT Leadership

- ▶ Problem Solving
- ▶ Innovation
- ▶ Inc Benefit
- ▶ Dec Cost
- ▶ Inc Value

- ▶ Tell others





RT SIDEBAR

- 88 Countries
- >80 Episodes
- > 18,600 Downloads
- > 130,000 Reel Views
- >10,000 YouTube Views
- >40,000 Total LinkedIn Followers
- New Platforms
 - RT Sidebar Barflies on LinkedIn
 - JJtheRT on Instagram
 - Mindy on TikTok
 - Respiratory Therapy Breakroom on FB
- **#1 Respiratory Podcast in the World**





<https://www.youtube.com/@RespiratoryCoach>

Questions??

You might think being a
Respiratory Therapist
Is easy... 
But It's SNOT

Happy Respiratory Care Week!