BREAKOUT SESSION

12TH ANNUAL TELEHEALTH SUMMIT OF SOUTH CAROLINA

PALMETTO CARE CONNECTIONS™
technology. broadband. telehealth.

OCTOBER 28-30, 2024

Business and Leadership Track:

Virtual Provider in Triage: Transforming the ED Arrival Workflow for Enhanced Efficiency, Quality, and Cost-Effectiveness

Tuesday, October 29
3:30 PM - 4:15 PM

Marc Bartman, MD, FACEP
Medical University of South Carolina

Innovation powered by MUSC

DEPARTMENT OF EMERGENCY MEDICINE
DIVISION OF EM TELEHEALTH
MUSC Medical University of South Carolina

VPIT

VIRTUAL PROVIDER IN TRIAGE

LOCAL NEWS

Massachusetts General Hospital in "full-blown crisis" for patients looking for emergency care

BIRMINGHAM NEWS

UAB: Emergency department crowding has reached a 'crisis point'

Published: Apr. 25, 2023, 12:47 p.m.

YaleNews EXPLORE TOPICS

Emergency department crowding hits crisis levels, risking patient safety

In two studies, Yale researchers describe widespread, worsening emergency department boarding and crowding. It puts patient safety and access to care at risk.

Home / News / Health News / Crowded ERs Point to a Hous...

COMMENTARY

Overflowing Emergency Departments Highlight U.S. Medicine's House of Cards

Emergency room crowding is a critical safety issue with cascading consequences for patients and providers alike.

HEALTHIEST COMMUNITIES U.S.News & WORLD REPORT

ED CROWDING

The need for emergency services exceeds available resources for patient care in the ED, hospital, or both

Causes are multifactorial and span the entire health care delivery system.

- Continued growth in ED visits, outpacing population growth
- Advanced population age
- Increasing patient acuity requiring more complex evaluation and treatment plans that increase the ED and inpatient lengths of stay
- Decreased number of hospitals and available inpatient beds

ED CROWDING

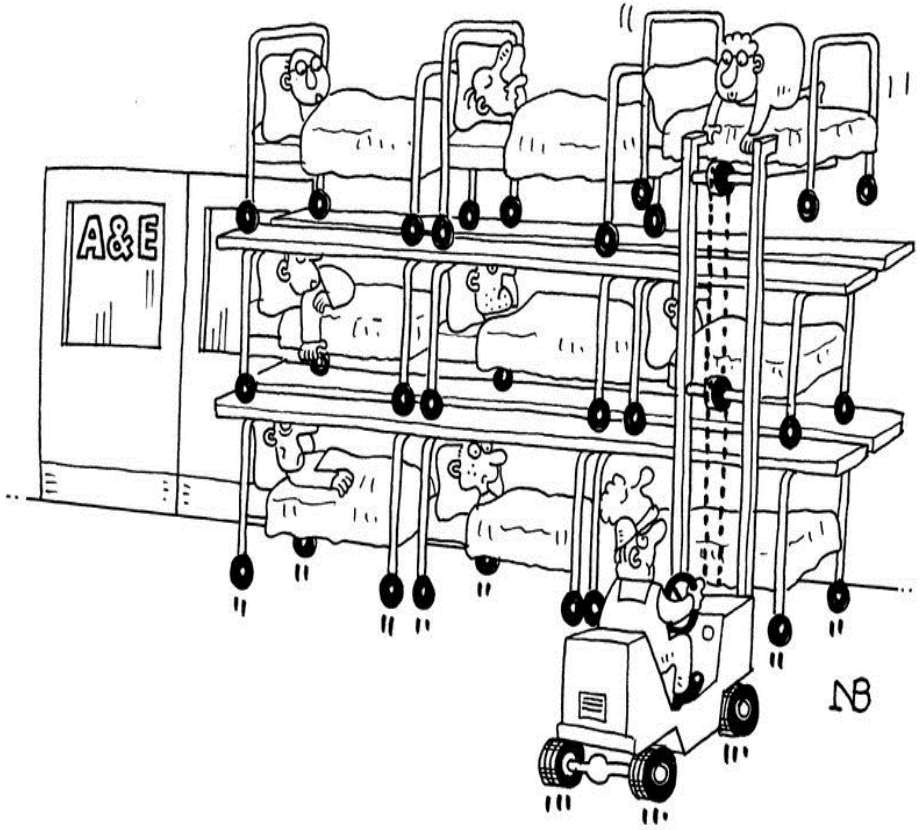
EMERGENCY DEPARTMENT

1992

89.8 M visits

2023

140+ M visits



HOSPITAL

1975

7,156 Hospitals

1.5 M Inpatient Beds

2024

6,120 Hospitals

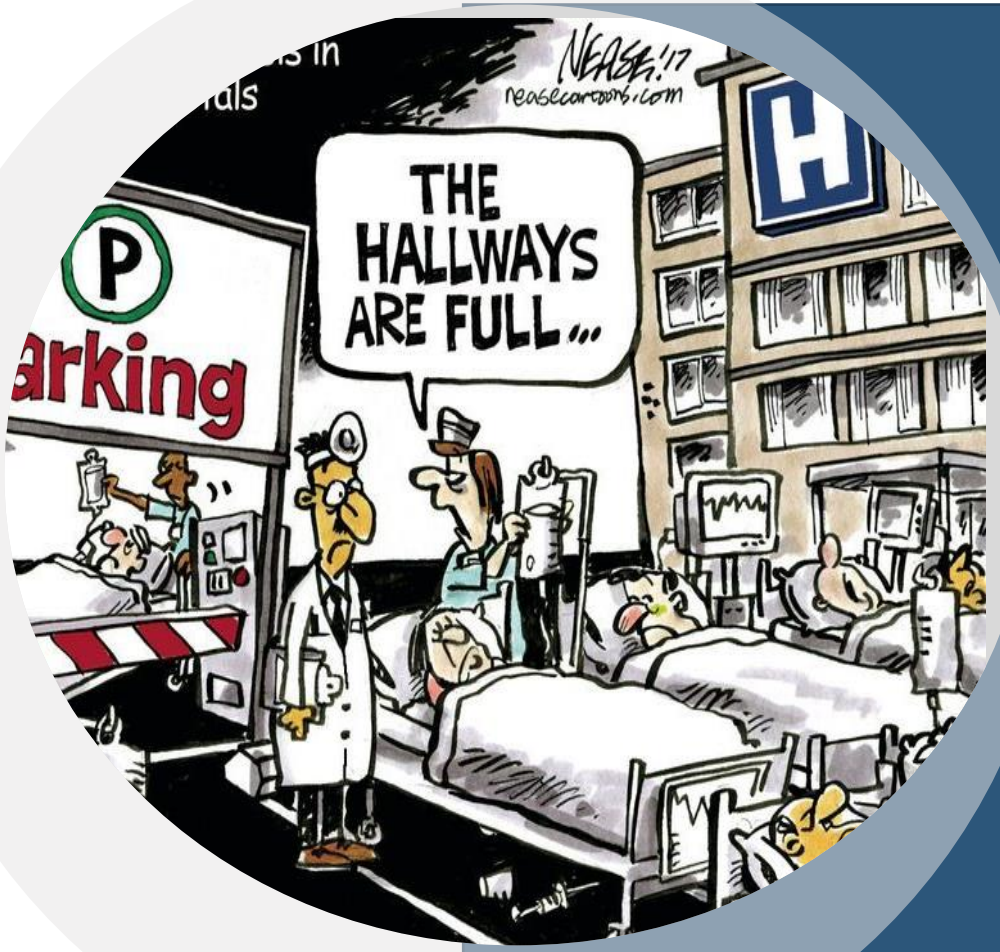
916,752 Inpatient Beds

BOARDING

The strain on hospital inpatient bed capacity creates downstream pressure to board admitted patients in the ED

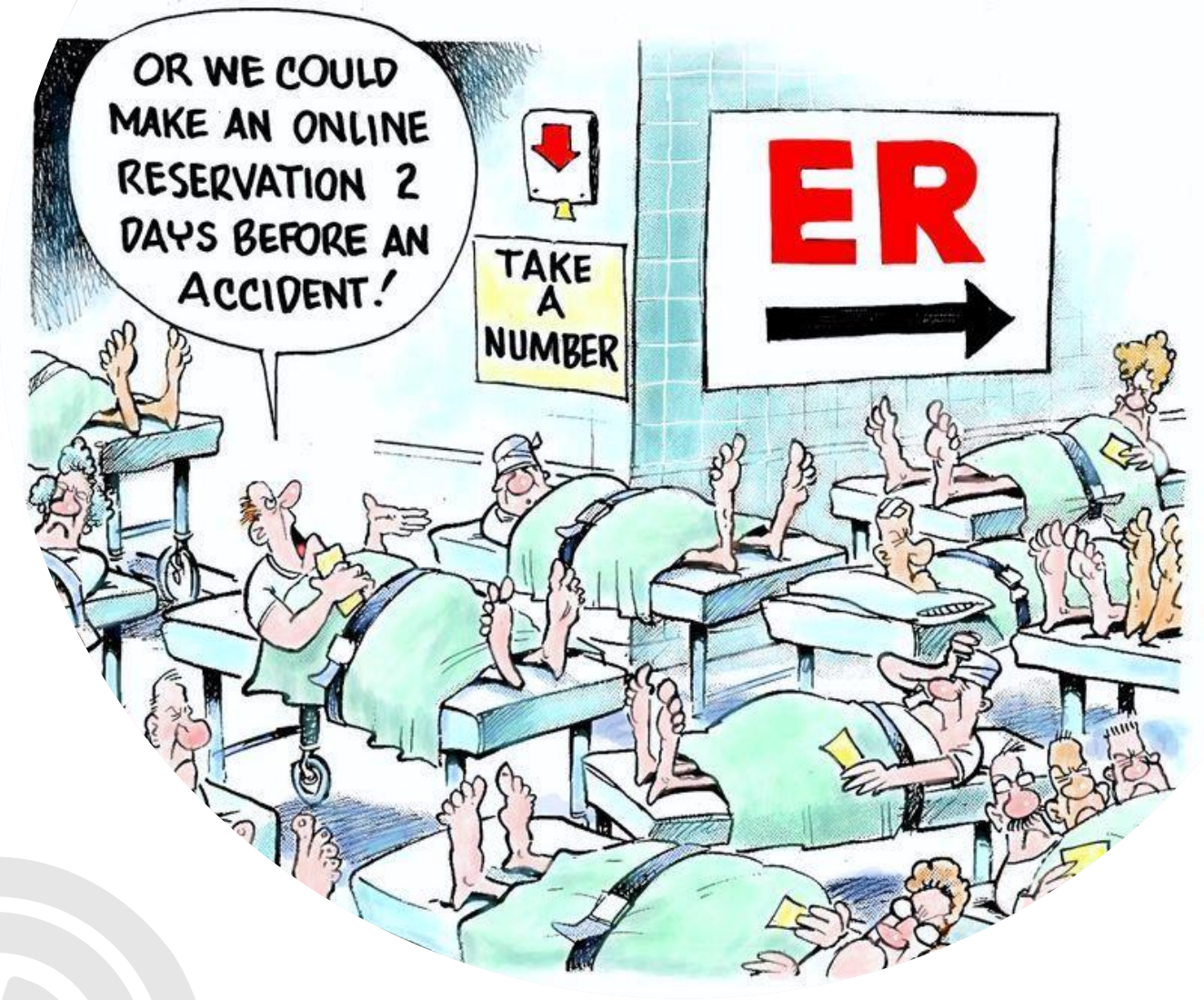
Boarders utilize ED space and resources

- Beds
- Nursing care
- Ancillary and support services



ED CROWDING

- Significant delay in evaluation and treatment of emergency patients
- Patients leaving prior to completion of medical workup
- Increased morbidity and mortality for ALL ED patients
- Decreased patient satisfaction
- Reputation damage for the entire institution

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THE WESTIN HILTON HEAD ISLAND RESORT AND SPA

LWBS

- Patients that leave the ED before a MSE (medical screening exam)
- National average 3% ≈ 4.2 million visits/year
- South Carolina average 3%

CMS

THE EMERGENCY MEDICAL TREATMENT AND LABOR ACT

Requires hospitals with emergency departments to **provide a medical screening examination** to any individual who comes to the emergency department and requests such an examination and prohibits hospitals with emergency departments from refusing to examine or treat individuals with an emergency medical condition. The term “hospital” includes critical access hospitals.

CMS QUALITY INDICATORS/TIMELY AND EFFECTIVE CARE

Timely and effective care in hospital emergency departments is **essential for good patient outcomes**. Delays before getting care in the emergency department can reduce the quality of care and increase risks and discomfort for patients with serious illnesses or injuries. Waiting times at different hospitals can vary widely, depending on the number of patients seen, staffing levels, efficiency, admitting procedures, or the availability of inpatient beds.

Percentage of patients who left the emergency department before being seen

Lower percentages are better

5%

of 91309 patients

National average: 3% [25,26]

South Carolina average: 3% [25,26]

Percentage of patients who came to the emergency department with stroke symptoms who received brain scan results within 45 minutes of arrival

Higher percentages are better

86%

of 14 patients

National average: 69% [25]

South Carolina average: 79% [25]

Emergency department volume

Very High

60,000+ patients annually

Average (median) time patients spent in the emergency department before leaving from the visit

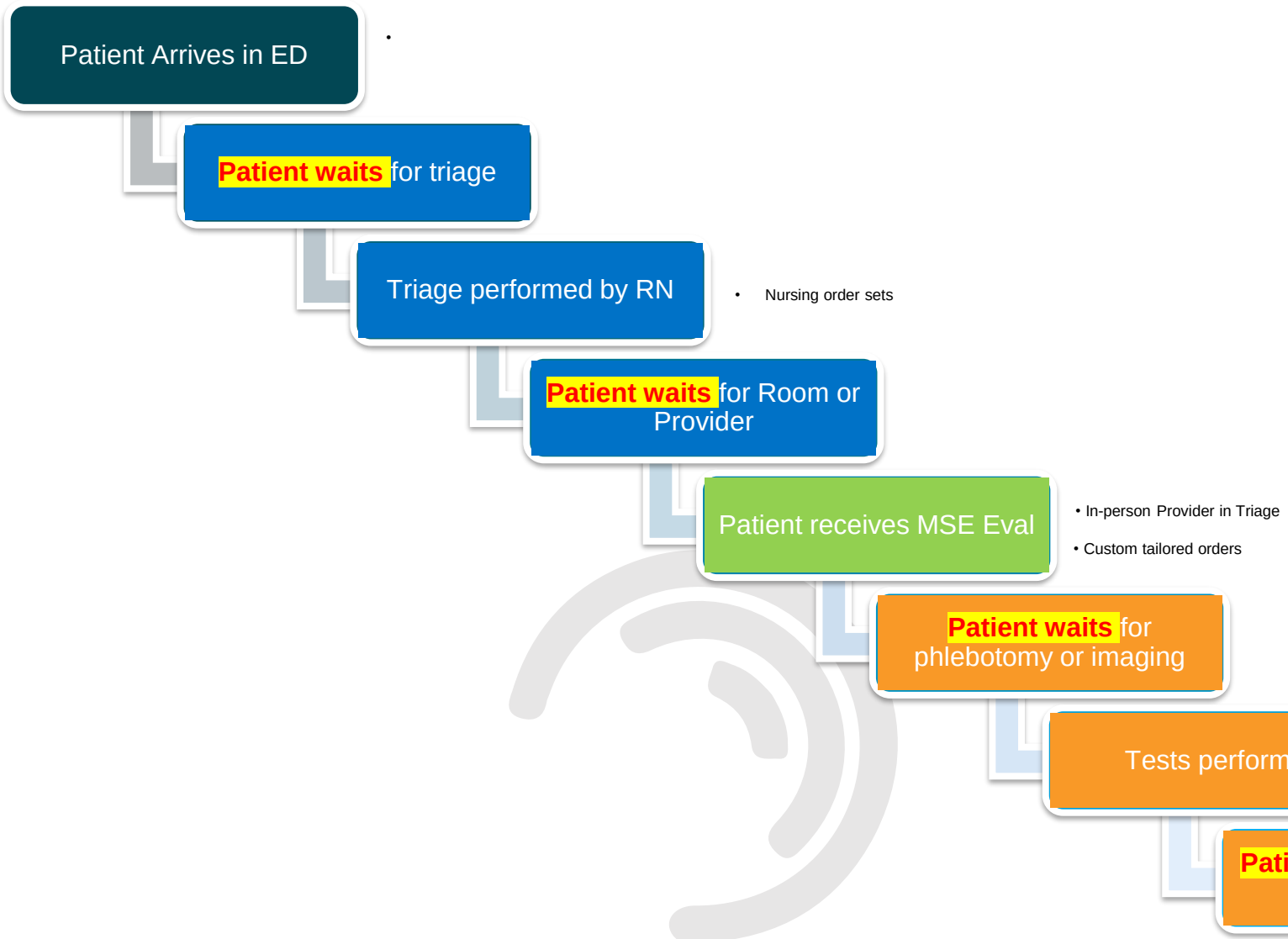
A lower number of minutes is better

240 minutes

Other Very High volume hospitals:

Nation: 196 minutes [25,26]

ED ARRIVAL WORKFLOW



VPIT VALUE PROPOSITION

Decreased

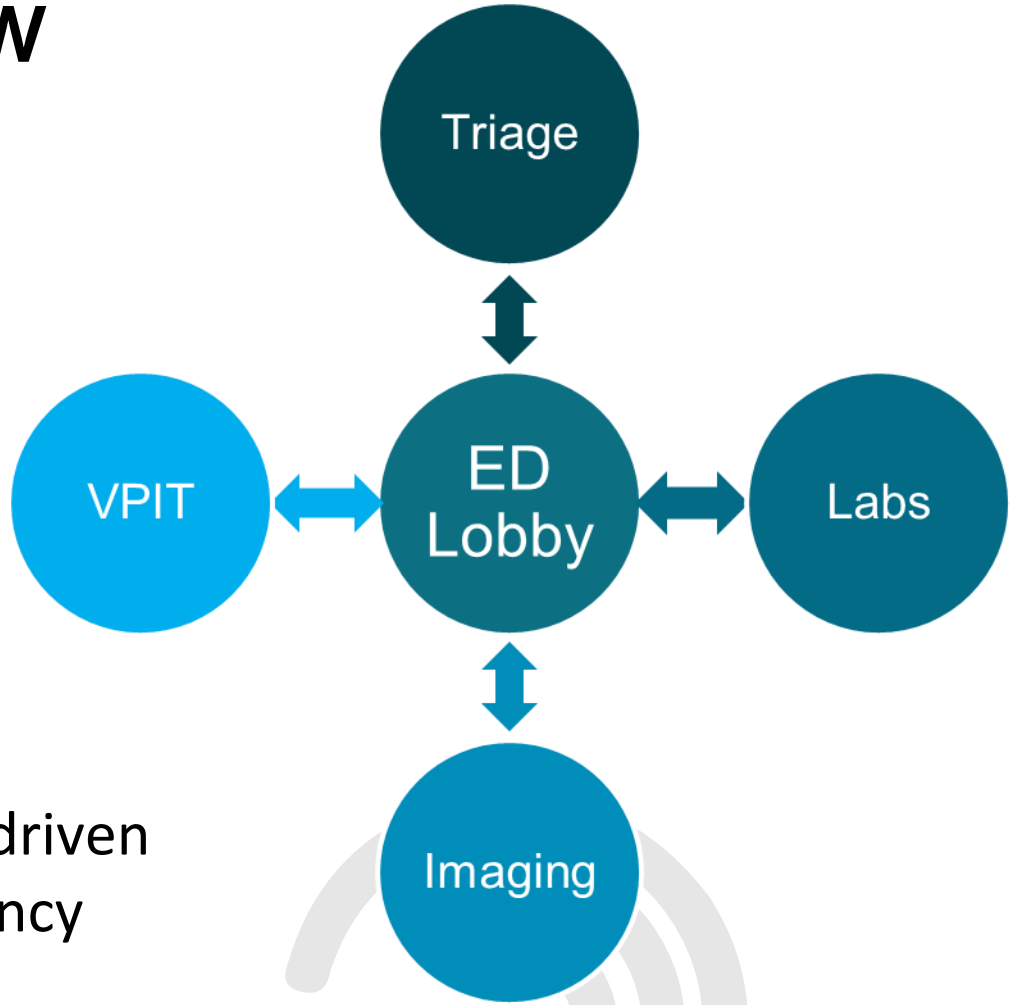
- Door to provider time
- %LWBS
- Length of stay for lower acuity patients*

Improved

- Patient safety
- Patient engagement and satisfaction
- Utilization of existing resources

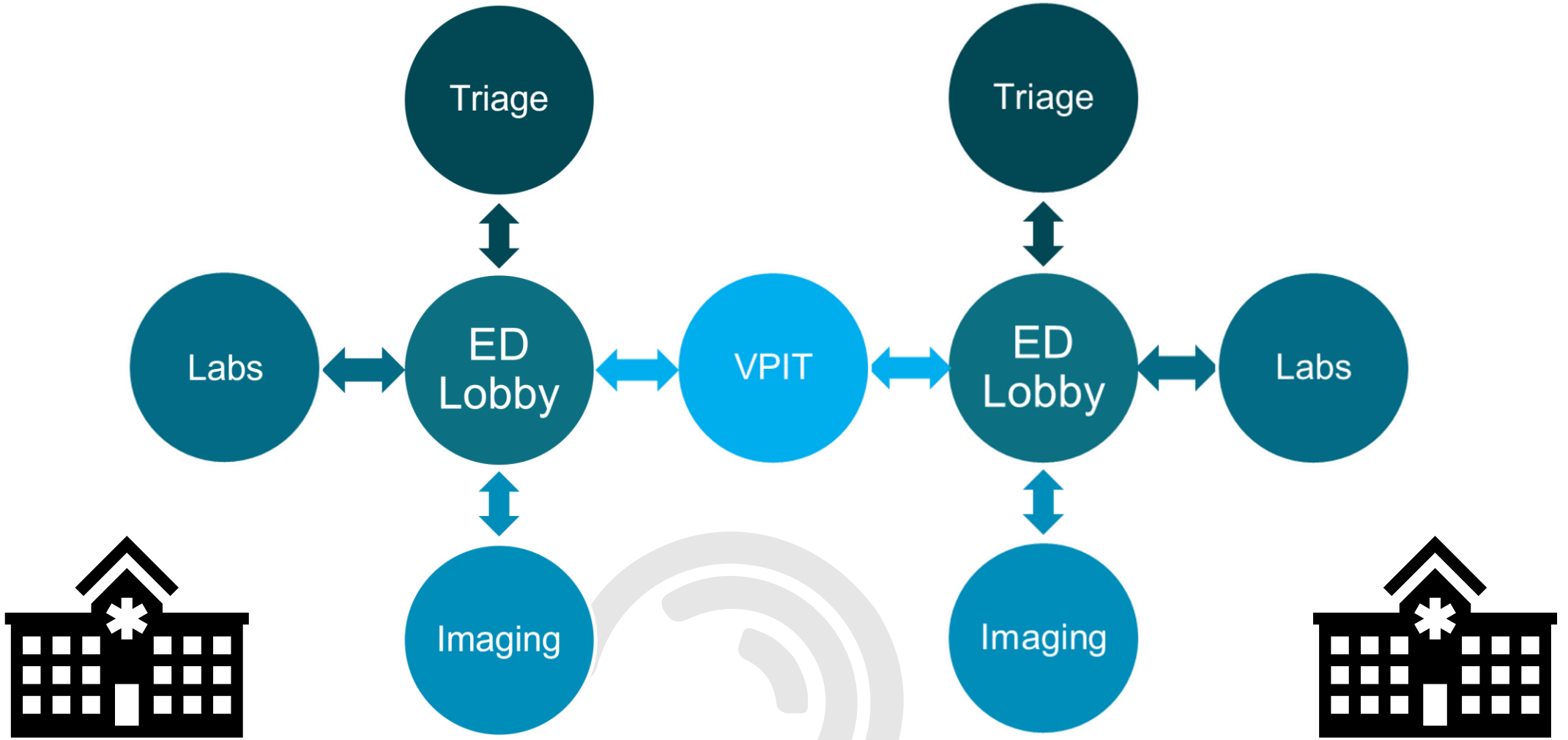
Recapture lost revenue

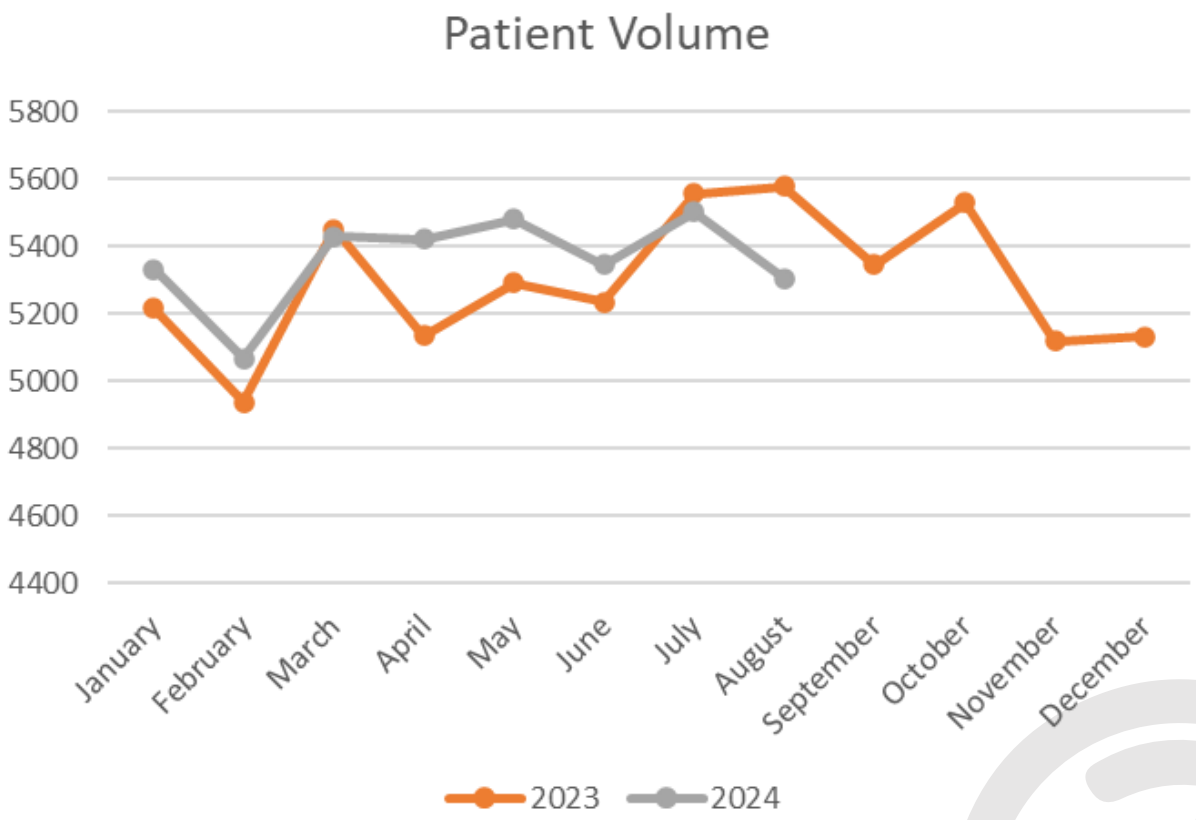
VPIT WORKFLOW

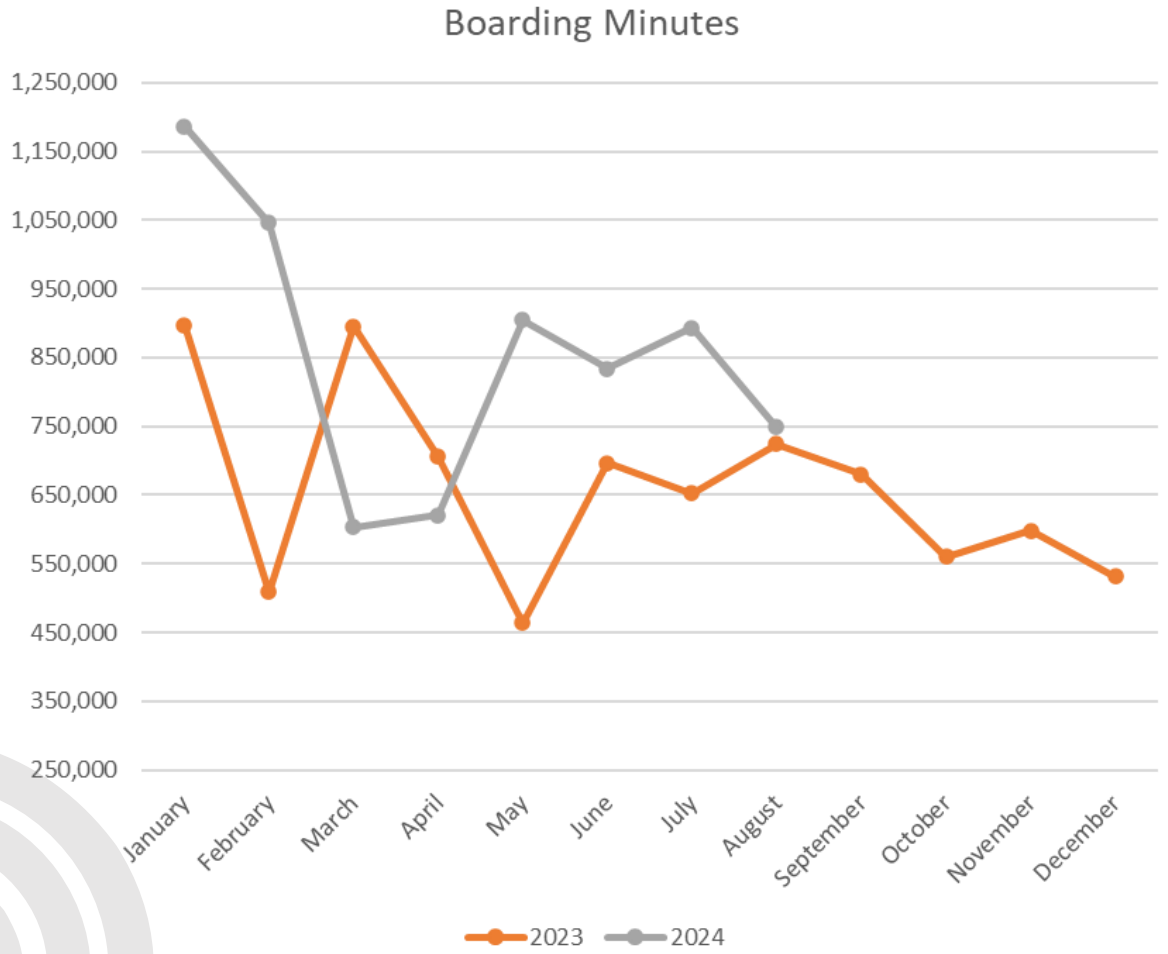


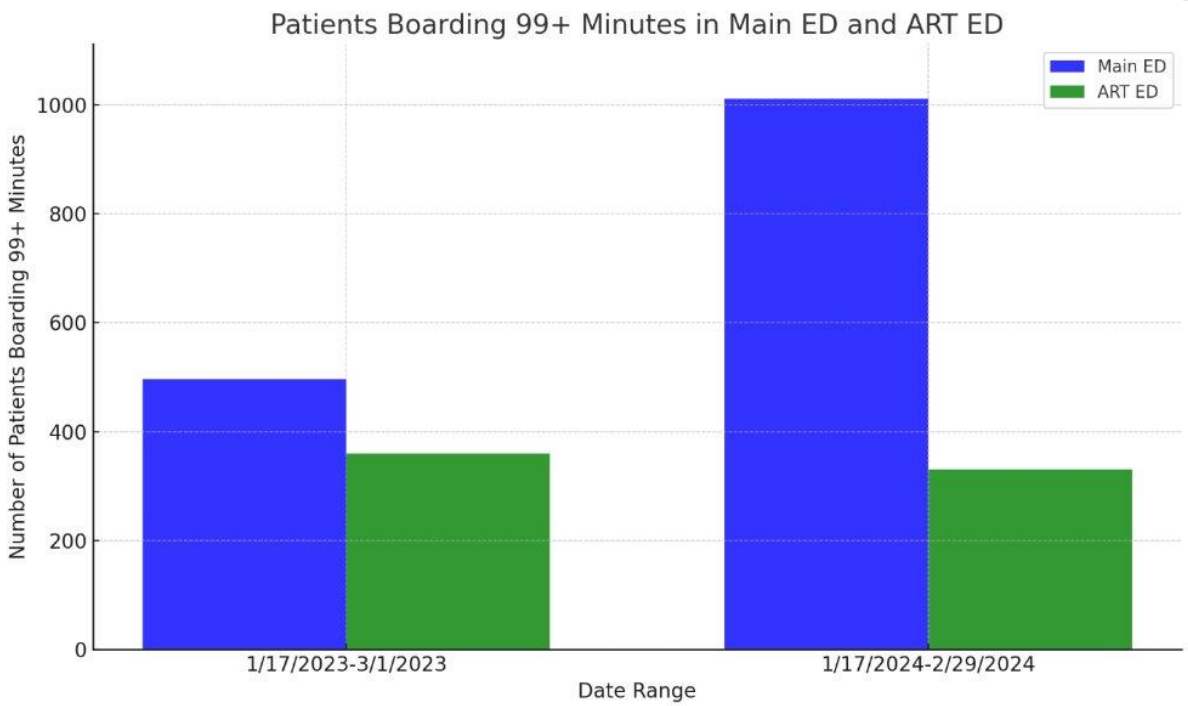
- Non-linear workflow
- Patient centric/task driven
- Optimized for efficiency

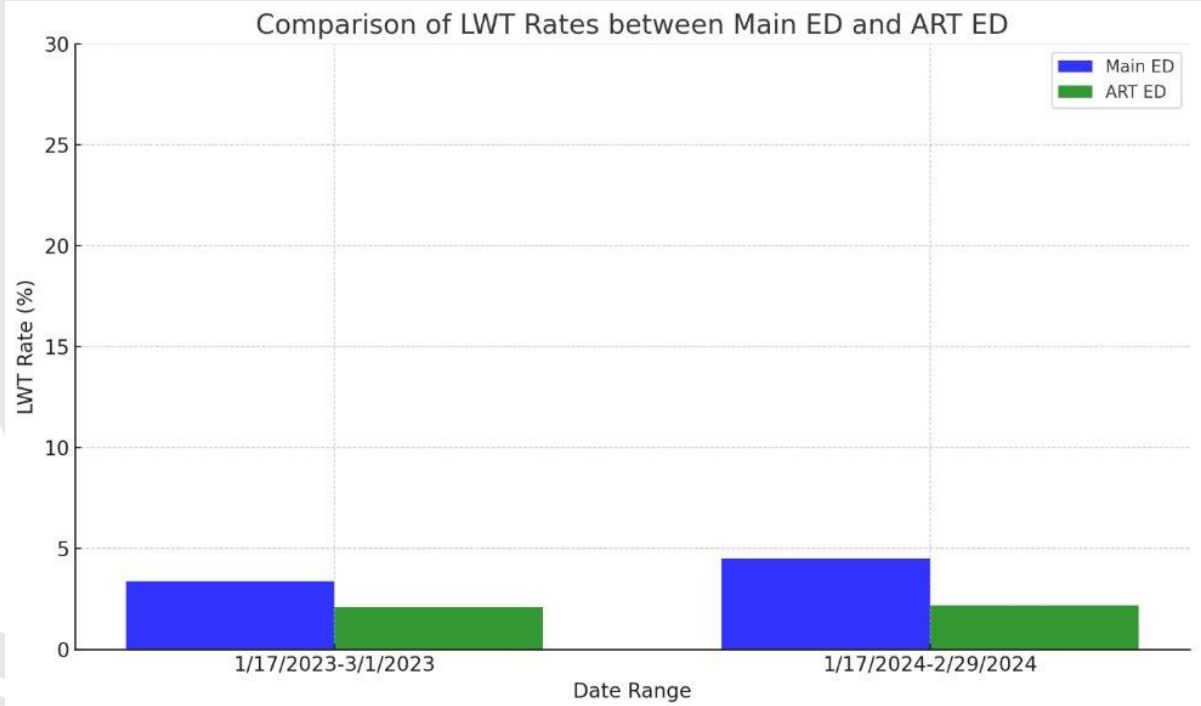
SCALABLE

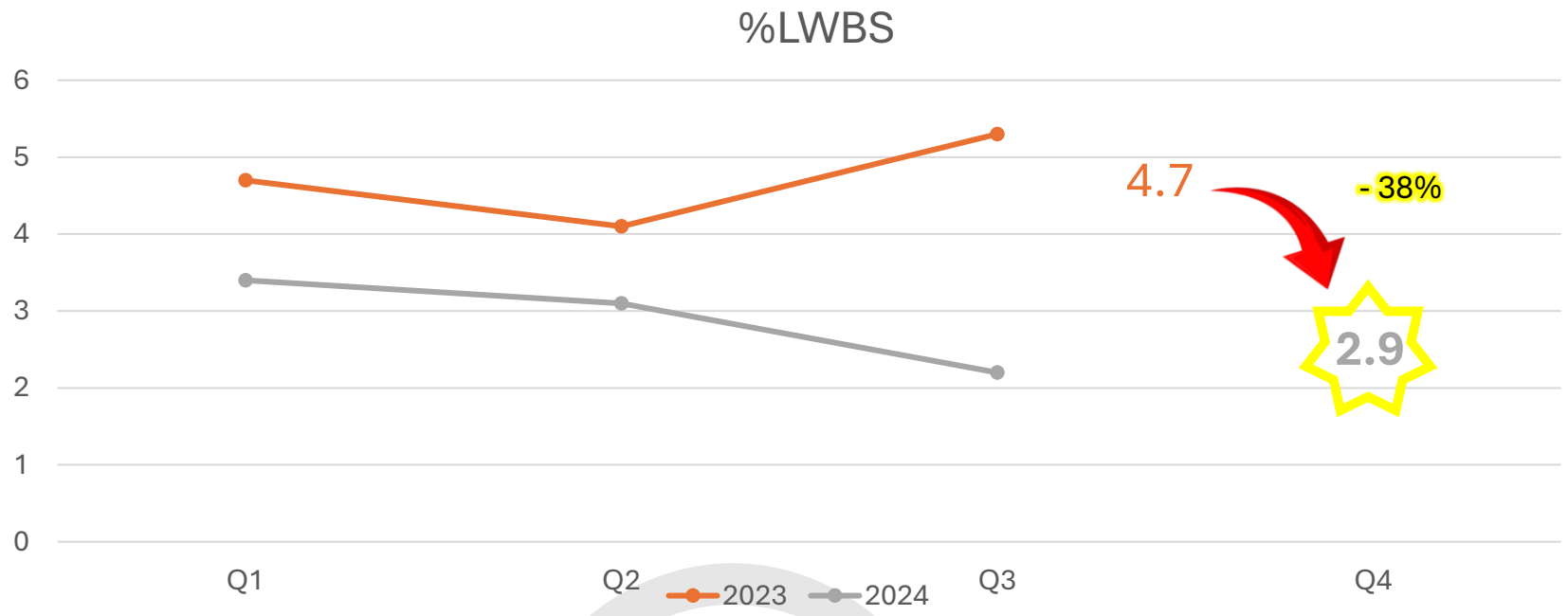


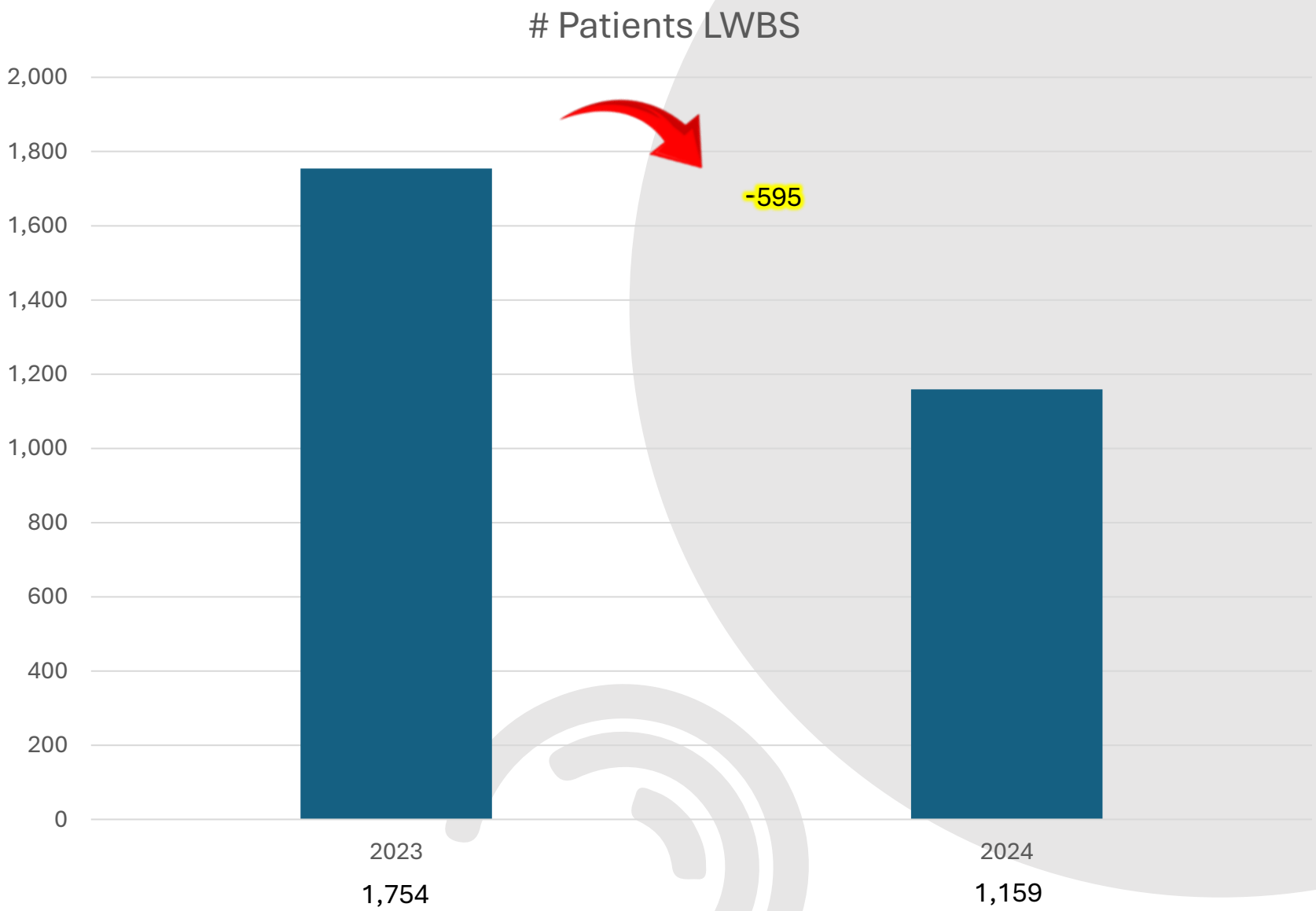

Patient Volume
5800
5600
5400
5200
5000
4800
4600
4400
January
February
March
April
May
June
July
August
September
October
November
December
2023
2024

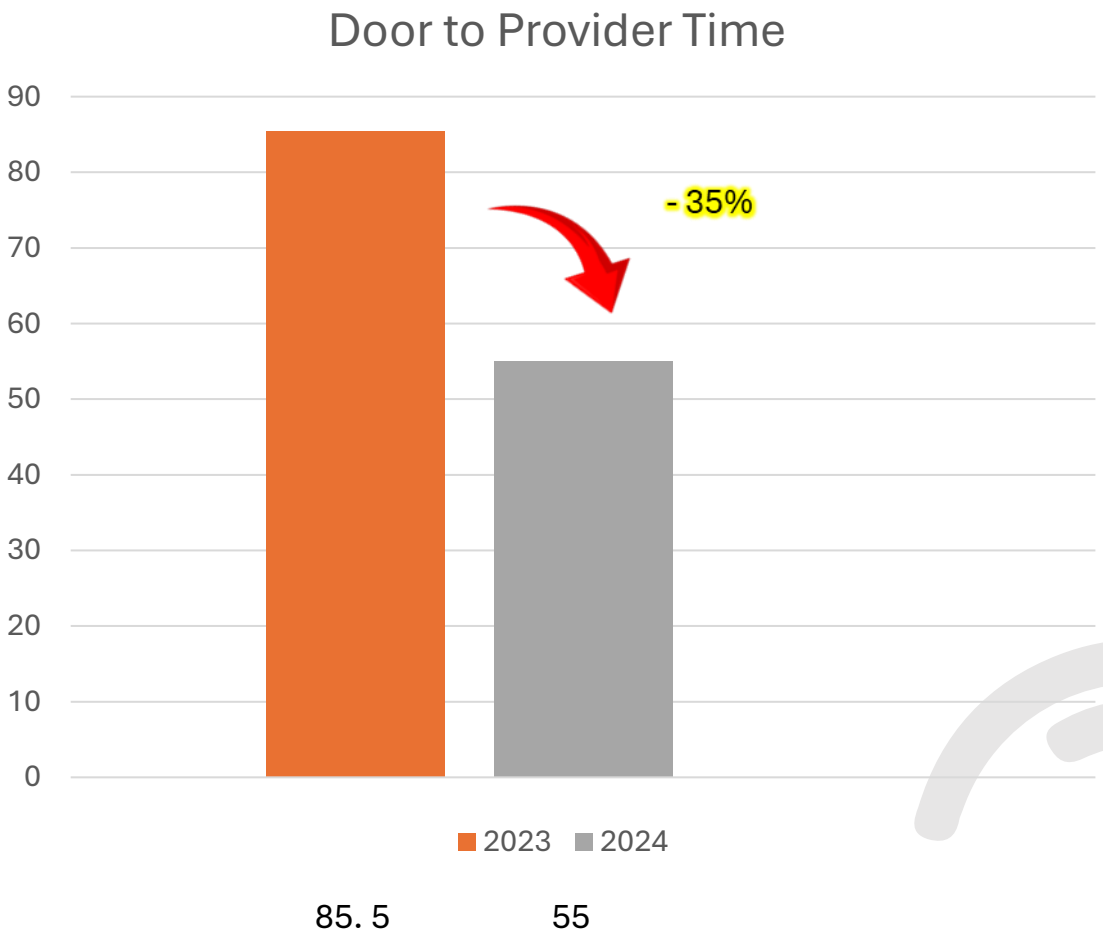

Boarding Minutes
1,250,000
1,150,000
1,050,000
950,000
850,000
750,000
650,000
550,000
450,000
350,000
250,000
January
February
March
April
May
June
July
August
September
October
November
December
2023
2024

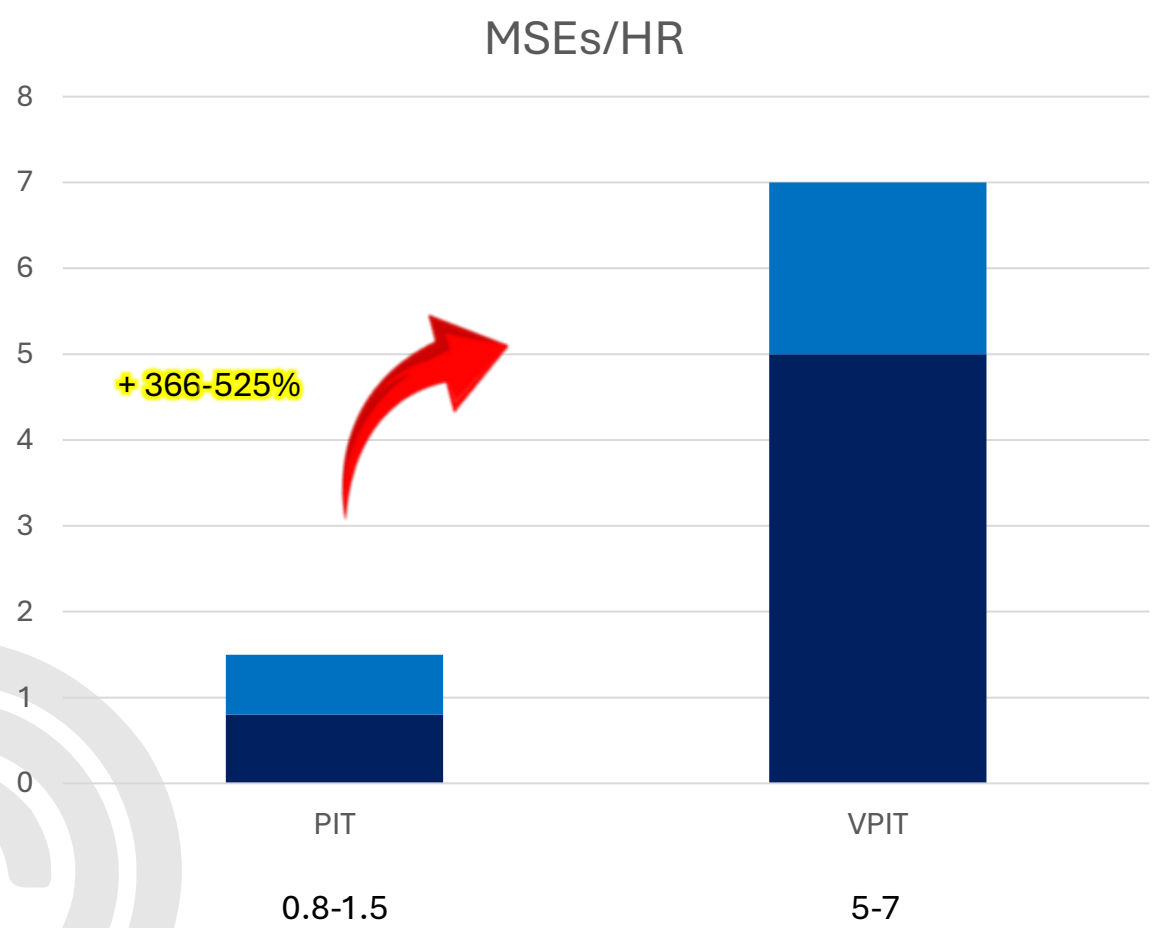









Door to Provider Time
90
80
70
60
50
40
30
20
10
0
- 35%
2023
2024
85. 5
55


MSEs/HR
8
7
6
5
4
3
2
1
0
+ 366-525%
PIT
VPIT
0.8-1.5
5-7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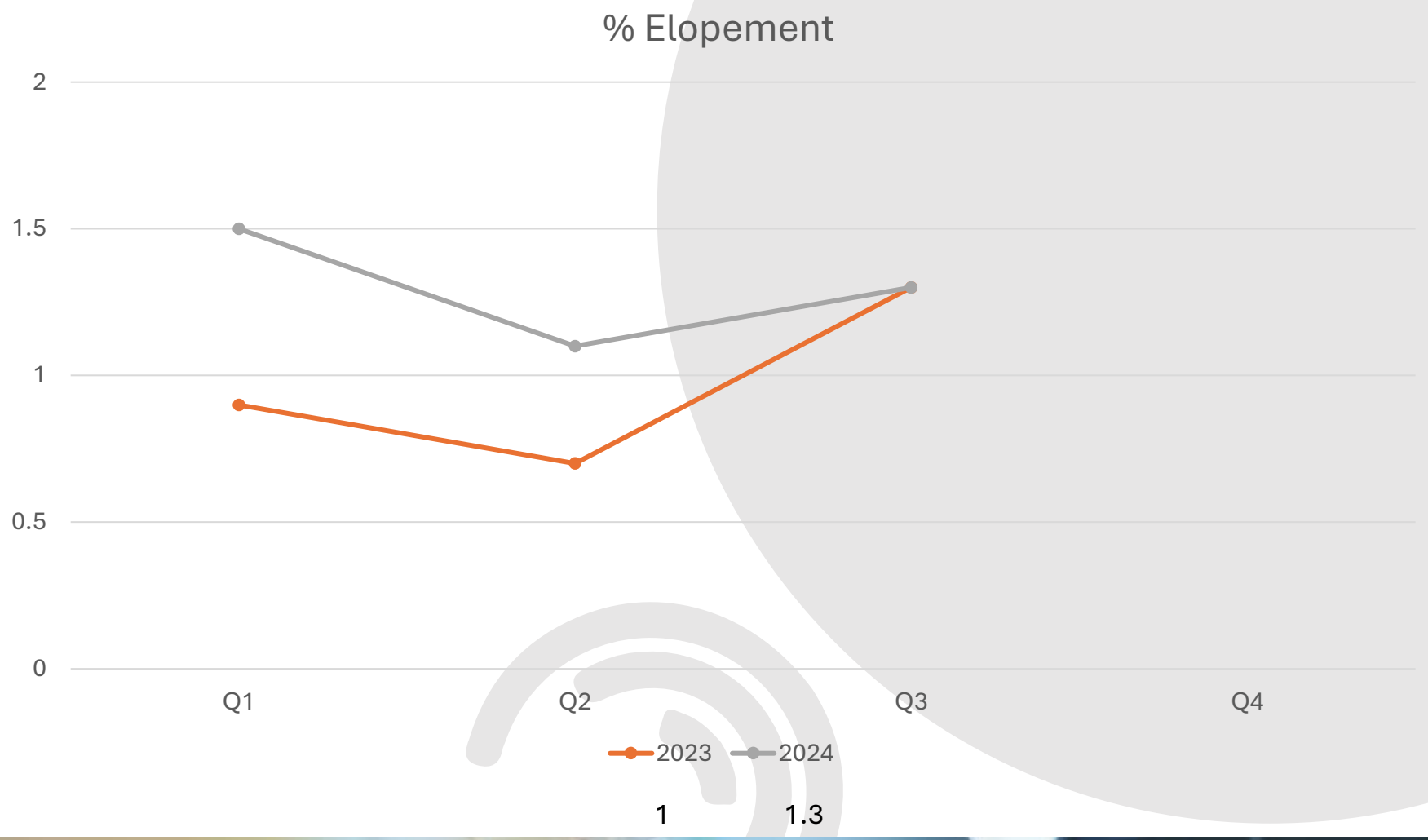
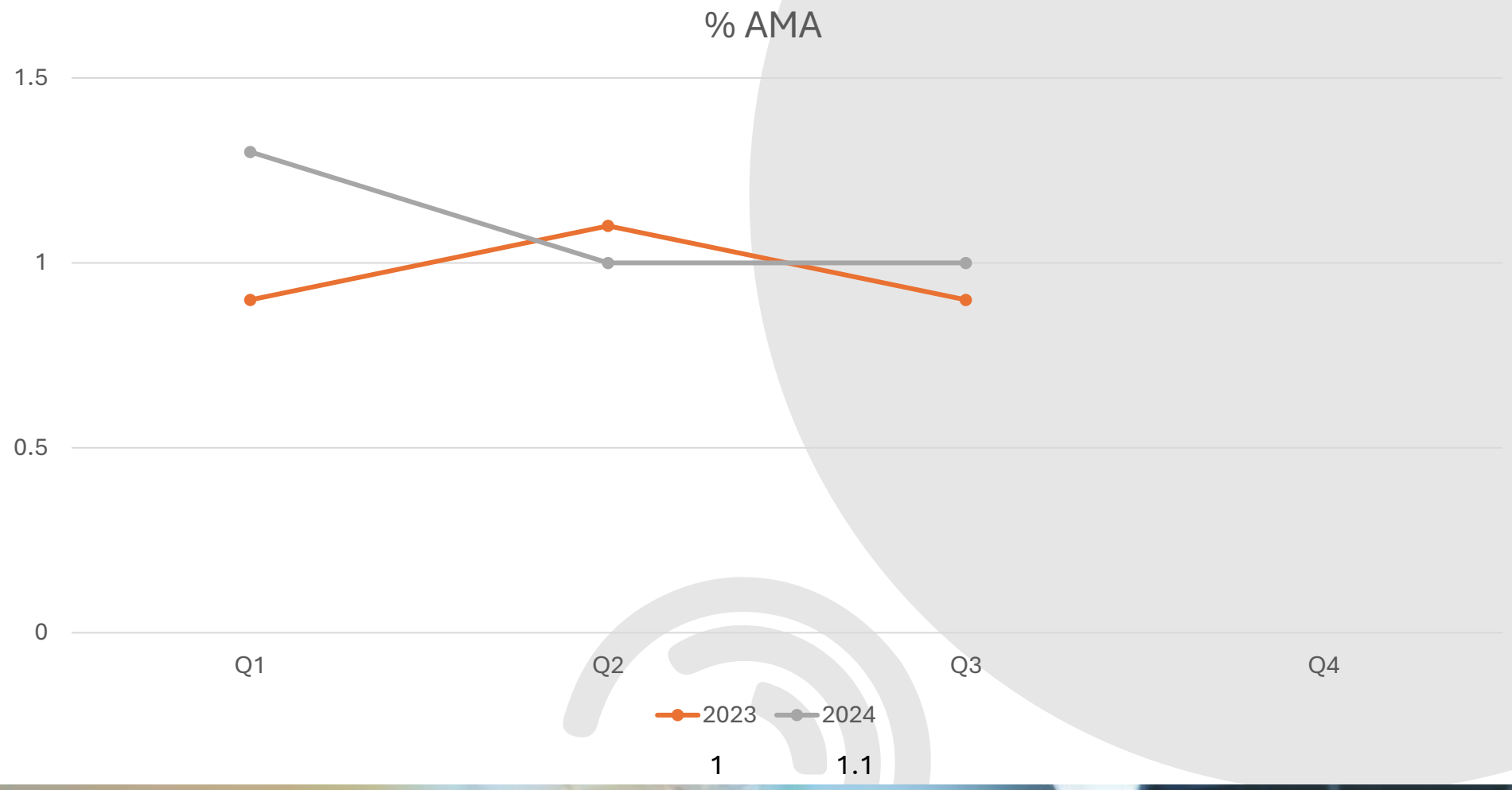


1 1.3



VPIT Value Proposition

Improved Patient Experience

Engaged

Decreased door-to-provider time

Private assessment that establishes the provider-patient relationship early in the visit

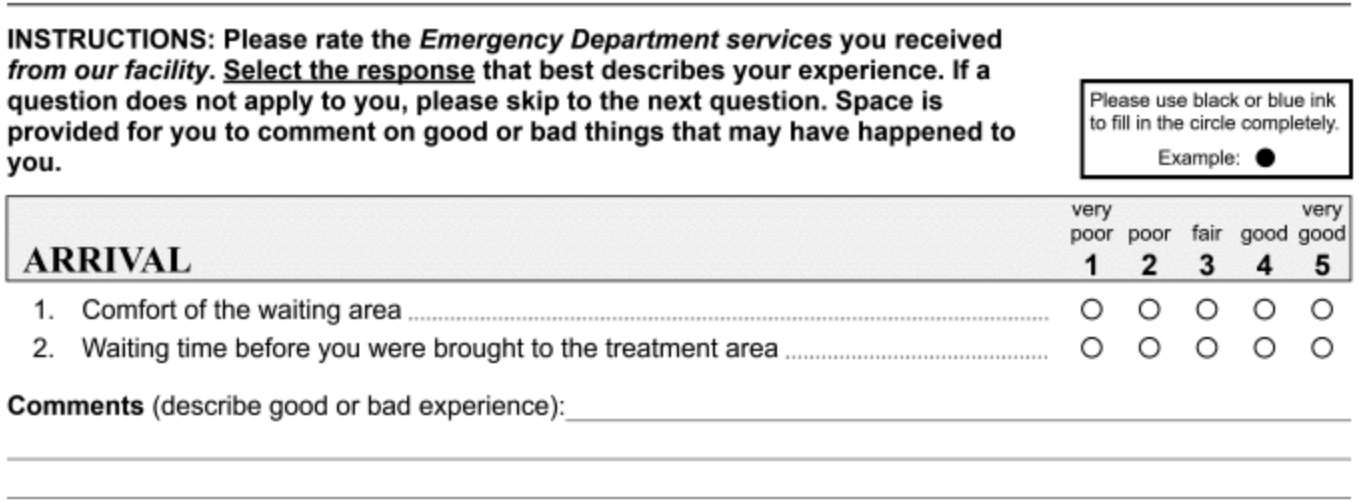
Informed

Custom-tailored workup with a thorough explanation of what to expect

Updated

Automated and personalized messages to keep the patient engaged throughout their care journey.

PATIENT SATISFACTION METRICS



INSTRUCTIONS: Please rate the *Emergency Department services* you received *from our facility*. Select the response that best describes your experience. If a question does not apply to you, please skip to the next question. Space is provided for you to comment on good or bad things that may have happened to you.

Please use black or blue ink to fill in the circle completely.
Example: ●

ARRIVAL	very poor 1	poor 2	fair 3	good 4	very good 5
1. Comfort of the waiting area	○	○	○	○	○
2. Waiting time before you were brought to the treatment area	○	○	○	○	○

Comments (describe good or bad experience):

- Create a real-time survey that is VPIT specific
- Expand the survey to include all lobby issues with real-time service recovery by nurse quarterback/concierge
- Collaborate with Press Ganey to enhance the existing arrival questions, ensuring they accurately capture the impact of our services on the arrival process

VPIT Value Proposition

Improved Patient Safety and Outcomes

Enhanced Triage: Introduces an additional layer of triage in the waiting room to identify sick patients earlier, providing an extra level of assessment beyond the traditional nursing model

- The VPIT service has **expedited recognition of emergencies**. The VPIT provider can identify more subtle signs of disease that traditional triage may miss during the initial assessment. This added layer of expertise enhances overall safety.

- The VPIT service has identified **near misses** due to incorrect triaging by traditional triage or worsening patient's condition in the ED lobby.

Abnormal Test Results: In basket pool containing a daily report of any abnormal results from patients marked as eloped

Sydney Allsbrook Funderburk, PA

Patient in the lobby that just checked in, [redacted]MR results from yesterday: IMPRESSION:

New left parietal subarachnoid hemorrhage.

CRITICAL RESULTS: New or unsuspected intracranial hemorrhage

6 mins

Angela Jessup Shealy, PA

Hey, I have concern for possible dislocation of left shoulder [redacted] in the waiting room. Im not sure that she quite meets tauma c criteria without head injury, thinners or LOC, but she is [redacted] and unable to move that left arm. I have xray orders in. She denied numbness and tingling but can't really move her left hand

9 mins

Bret Thomas Loefstedt, PA

Globe rupture is in VC. Optho is aware and requesting CT to make sure there are no FB

1

Jun 24, 6:24 PM

Angela Jessup Shealy, PA

Hey I want to call a BAT on this pt. CVA 2 weeks ago with involvement of MCA. Last 24 hours disorientation, can't recall words. Unable to tell me where she is, mixing up letters. Really hard for me to get a neuro assessment right now but I think its enough change in 24 hours for a BAT

Jul 24, 1:17 PM

Daniel John Ritter, MD

seems reasonable

1

Jul 24, 1:17 PM

Angela Jessup Shealy, PA

cool aarons calling it, thanks

Jul 24, 1:20 PM

Aaron Reolegio, PCT

heading to CT now

1

Jul 24, 1:22 PM

Payton Stokes, PCT

Hello! This is Payton in phlebotomy for the WR. Just wanted to reach out and let you know pt [redacted]A has a K+ of like 10.8 I ran the Chem8 twice and got two high readings. The blood pulled nicely and I didn't notice any clotting or hemolysis... do you want me to wait until her BMP comes back to see how that result looks? I can also let my charge nurse know about it, her EKG is in her chart Thank you!

Jul 17, 1:22 PM

Sydney Allsbrook Funderburk, PA

[redacted]Thanks for letting me know! EKG looks okay, I guess wait for BMP? I can put a comment in there so we can be watching for it

Jul 17, 1:25 PM

Payton Stokes, PCT

ok sounds good, If I see the BMP result then I'll message you back to update you I let one of the nurses know so if lab calls we can check and see if the sample could've been hemolyzed [redacted]

1

Jul 17, 1:26 PM

Tara Thompson, PA

Hey all. I know it is shift change and I can't see any other attendings logged in yet but I wanted to let you guys know of this patient I am woried about. She is presenting with confusion that began within the last 24 hours. She did have liver transplant on 8/17 and newly prescribed eliquis. She is having strange behavior as per niece, like ordering several hundreds of dollars of uber eats. She does also complain of dizziness but no other neuro symptoms. I think if we can expedite getting her back and getting w/u like CT imaging of head would be great:)

Aug 27, 3:04 PM

Daniel John Ritter, MD

I'll inform shah

Aug 27, 3:06 PM

Tara Thompson, PA

thanks!

Aug 27, 3:08 PM

Erin Roper, RN and **Mackenzie Martin, RN** were added by **Alexander Depue, RN**.

Aug 27, 3:10 PM

Alexander Depue, RN

Hey triage gang can we get this person to the top of our lists?

Aug 27, 3:10 PM

ROI

- **Cost savings through optimized staffing efficiency**
- **Recaptured revenue from the reduction of LWBS rates**: both ED revenue (for discharged patients) and hospital revenue (for admitted patients) will be enhanced
- **Increased admissions:** Studies have shown that 10-17%* of patients that return to the ED after LWBS require admission to the hospital
- **Preventing loss of downstream revenue** from a new or established patient that leaves a health system as result of a negative ED encounter(s)

QUESTIONS ?

DEPARTMENT OF EMERGENCY MEDICINE

DIVISION OF EM TELEHEALTH

MUSC

THANK YOU!

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