



# Improving Patient Throughput at the ECU Health Pediatric Specialty Clinic

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ECU Health Quality Improvement Symposium

January 29, 2025

# Background/Introduction

- Ambulatory care clinics are challenged to provide patient-centered care within time constraints while maintaining patient, staff and provider satisfaction.
- A time study performed at the ECU Health Pediatric Specialty Clinic (PSC) in early 2023 revealed an average visit time of **67 minutes** with most clinic days (88%) extending past 5pm leading to staff dissatisfaction.
- Further analysis of the data showed that:
  - **Check in:** 27% of patients completed the front desk check in process an average of 9 minutes after their scheduled appointment time
  - **Triage process:** Patients waited in the lobby for an average of 9 minutes before being triaged and roomed
  - **Lab process:** Ordering labs added an additional 24 minutes to the visit.
- **Aim statement:** We aim to decrease the average visit time at PSC by 10 minutes by July 2025 by streamlining the check in, triage, and lab processes while preserving meaningful time spent in the exam room with the provider.

# Methods

- **Staff/Provider Input (Sept 2023):** Performed a clinic-wide Fishbone Activity to identify barriers to efficient patient care (large sticky notes posted in work rooms around clinic)
- **Outside Perspective (May 2024):** Asked the ECU Health Operations Excellence Team to observe our clinic and speak to our staff and providers to provide unbiased feedback regarding our clinic processes
- This information provided a framework for implementing changes using PDSA cycles focusing on the three main areas:

## Check-in process:

1. Extra staff at busy times (November 2023)
2. Early staff (December 2023)
3. Lunch schedule adjustments (December 2023)

## Triage process:

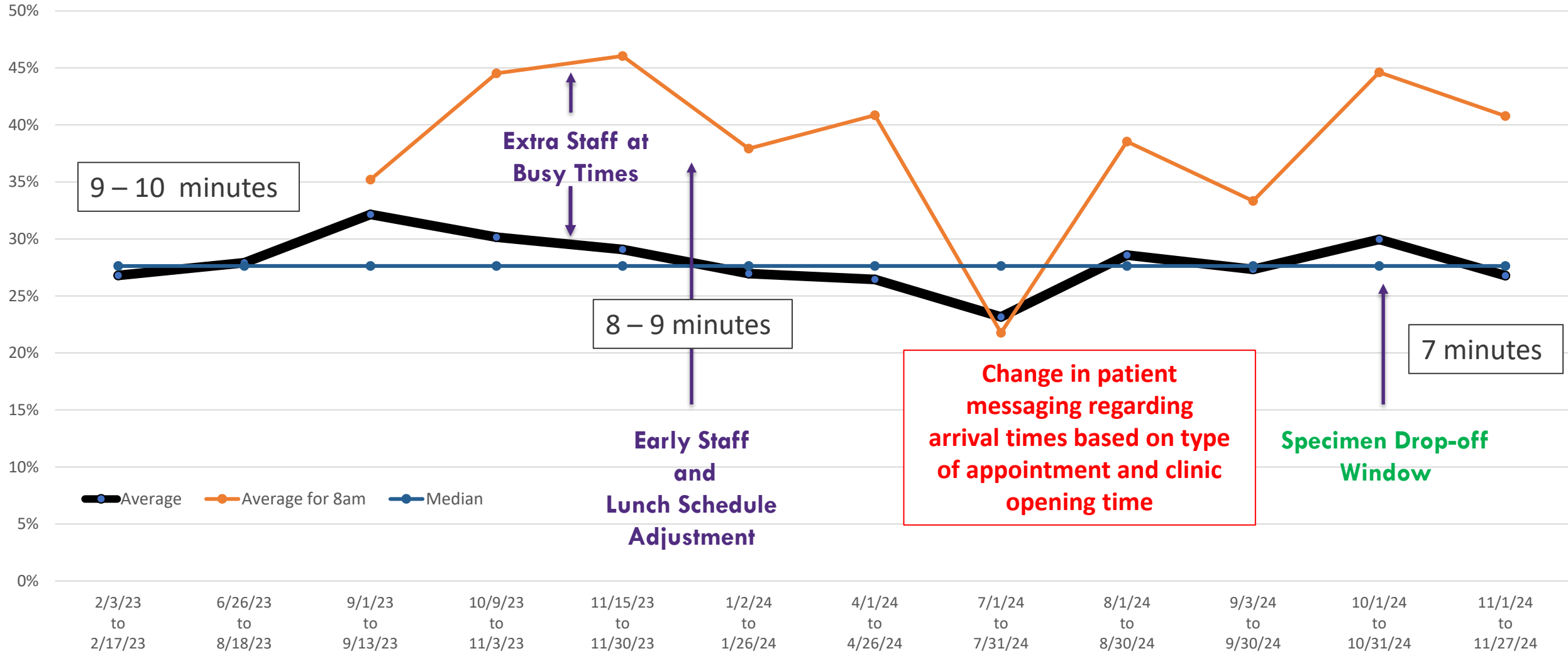
1. Prioritization of 2 triage rooms (August 2023, November 2023)
2. Early staff (December 2023)
3. Lunch schedule adjustments with focus on transitions (December 2023, August 2024)
4. Redistribution and clarification of responsibilities (September 2024)

## Lab process:

1. Lab waiting area (June 2023)
2. Dedicated phlebotomist (July 2024)
3. Specimen drop-off process (October 2024)
4. Automation of result entry (pending)

- Measures obtained at least quarterly (Using Epic Generated Time Stamps):
  - Check-in process: Percent of patients and average time patients are “arrived” after their appointment time
  - Wait time: Average time from when patient is “arrived” to “arrived removed”
  - Lab Process: Average time from room number changed to “lab” to “check out”
  - Total visit time: Average time from patient “arrived” to “check out”
  - Percent of clinic days that patients are checked out after 5pm

# Results: Percent of Patients Checked-In after their Appointment Time



3 new hires

Turnover rate of 46%

1 resignation

1 new hire  
1 resignation

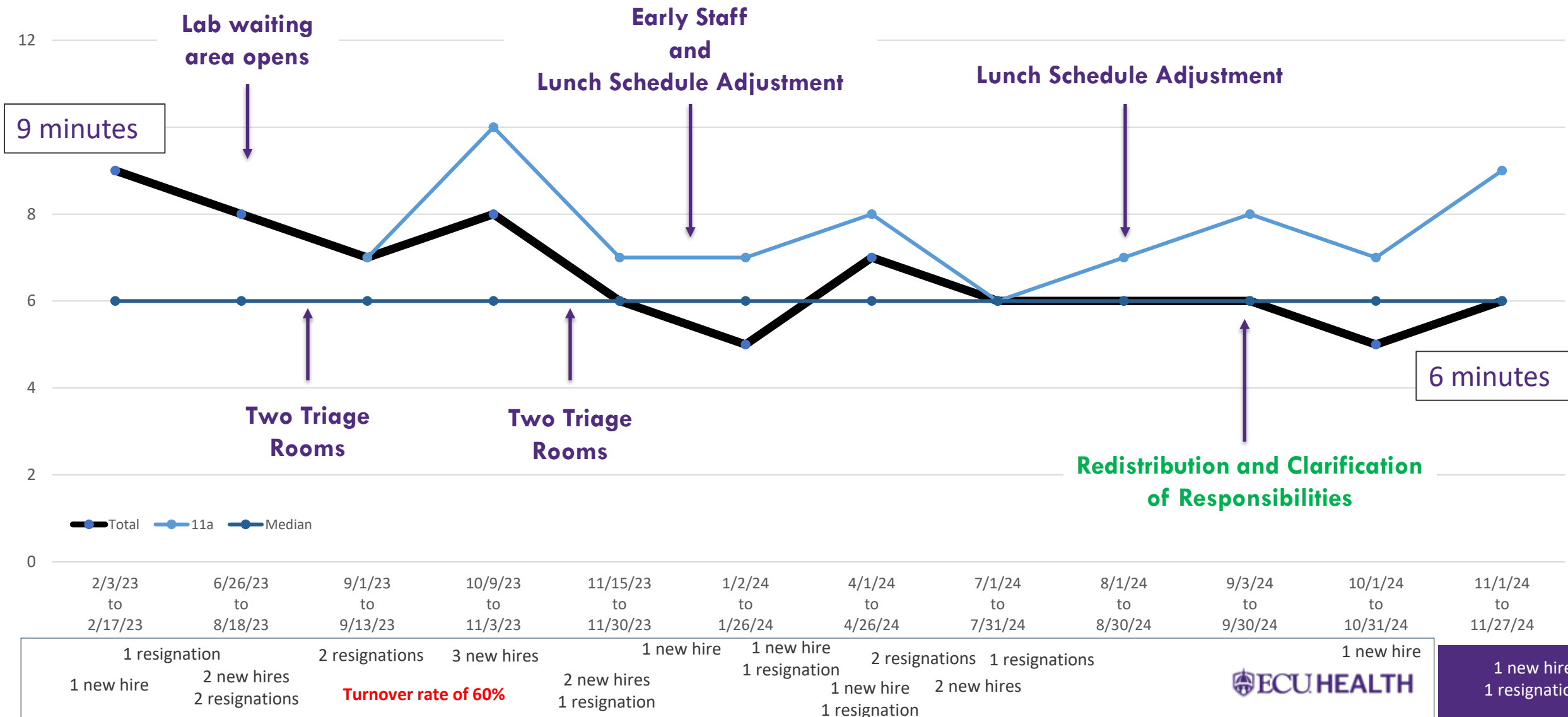
1 resignation

1 new hire

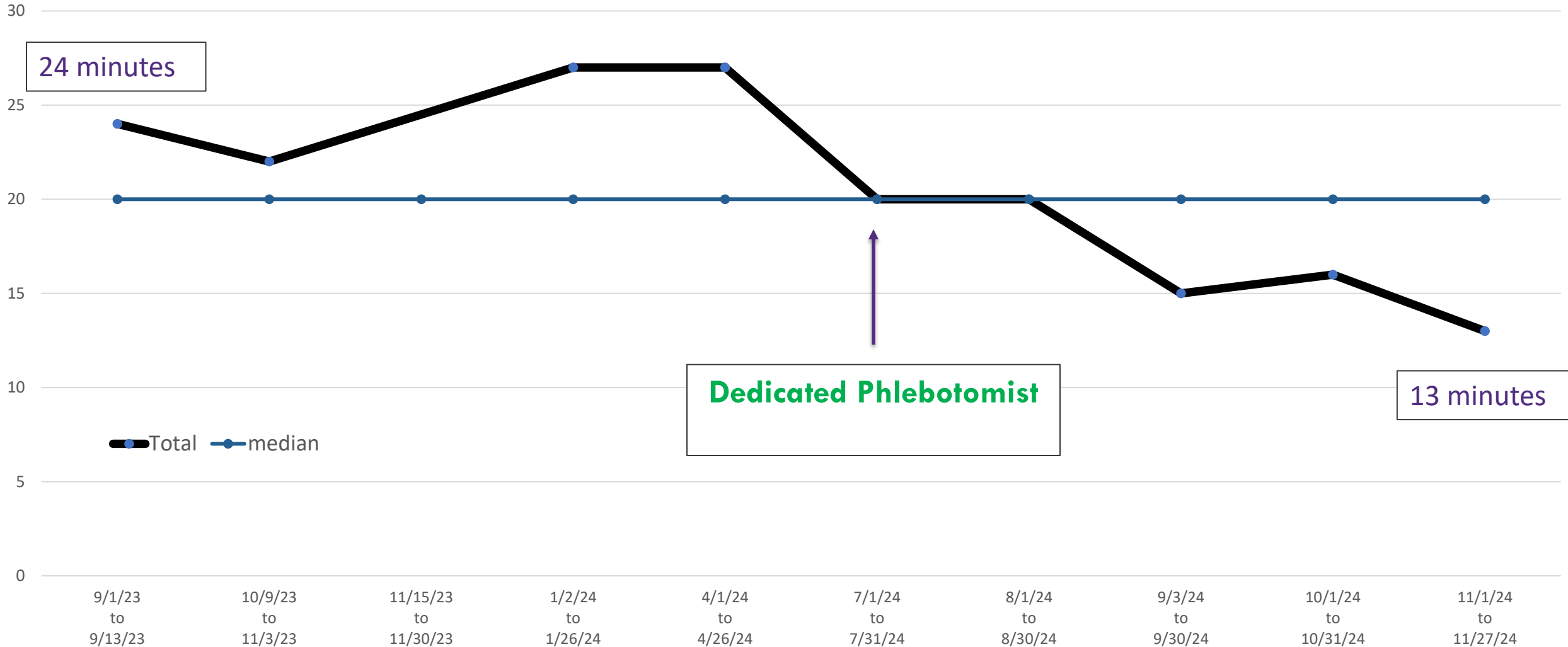
1 new hire



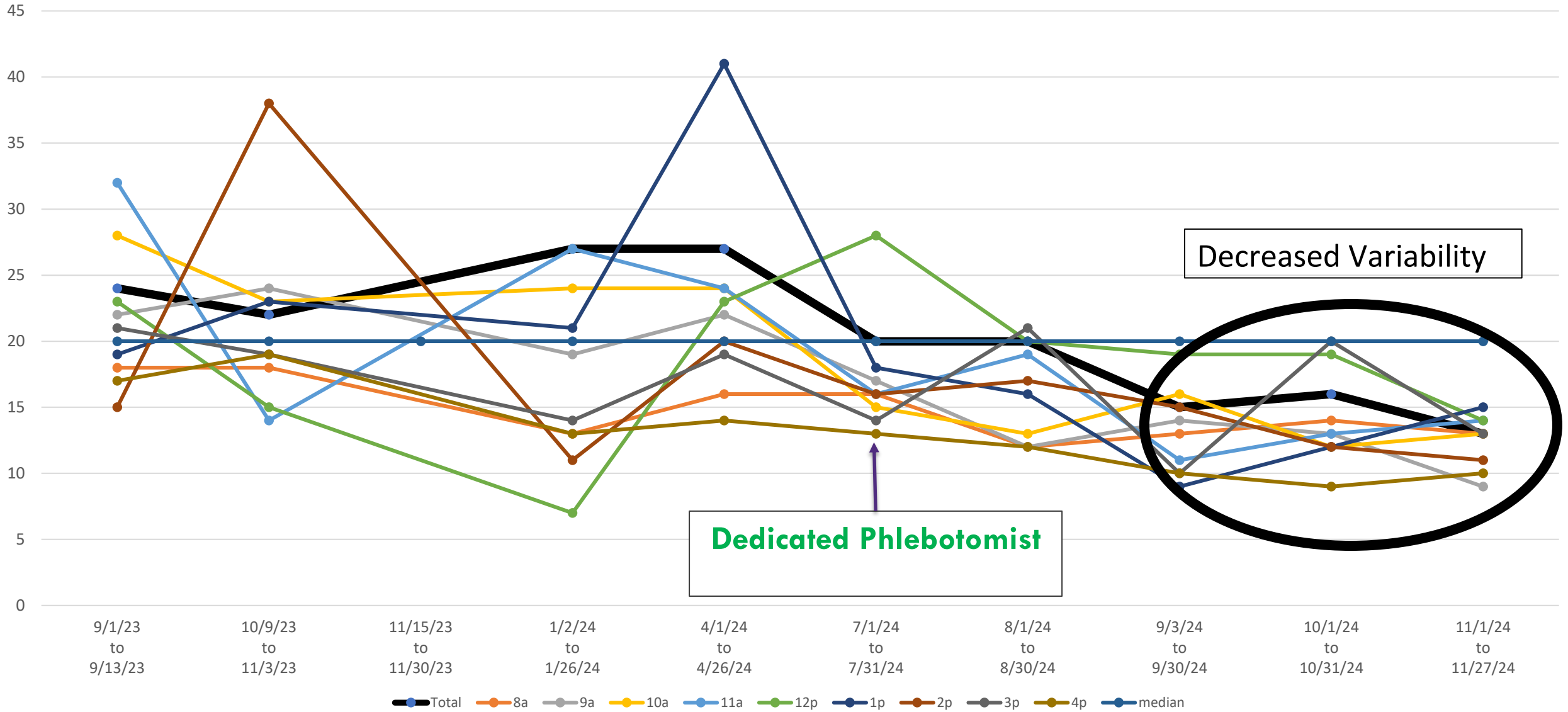
# Wait time in Lobby: Median of the Daily Average Time in Minutes from Check-In to Triage



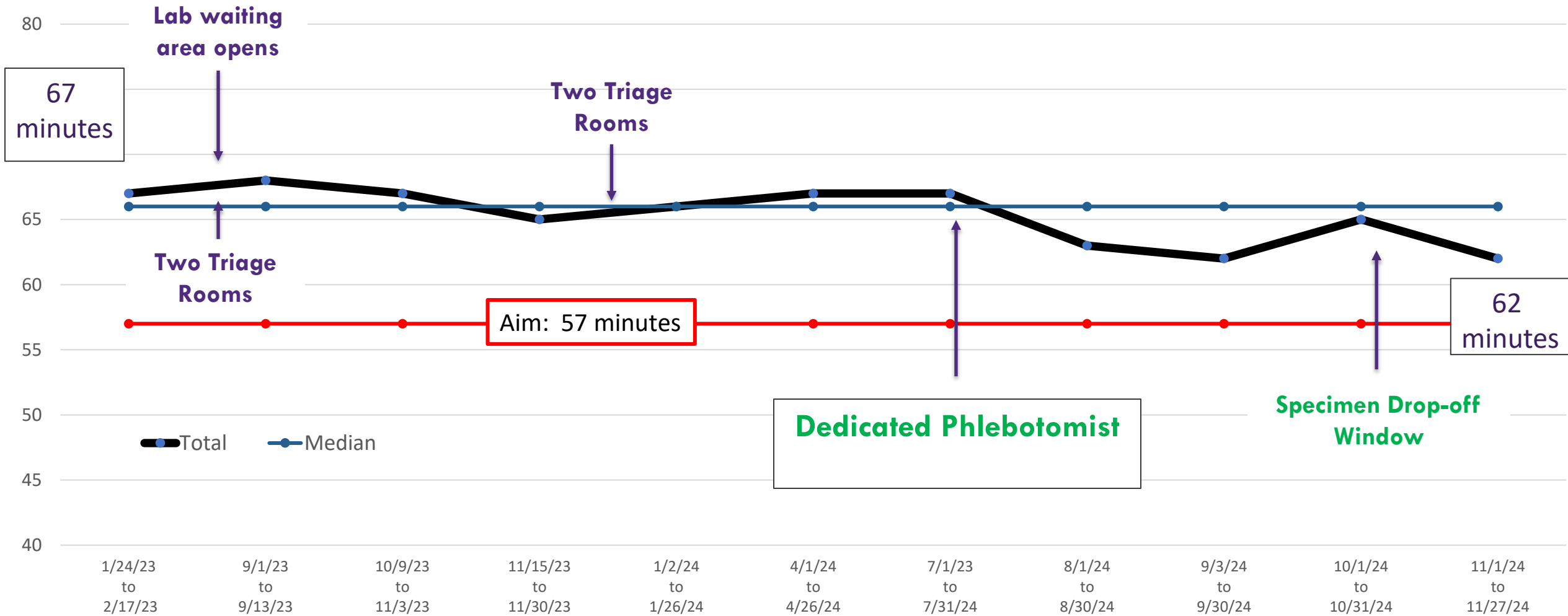
# Lab Process: Median of the Daily Average Time in Minutes from Labs Ordered to Check-Out



# Lab Process: Median of the Daily Average Time in Minutes from Labs Ordered to Check-Out



# Total Visit Time: Median of the Daily Average Time in Minutes from Check-In to Check-Out



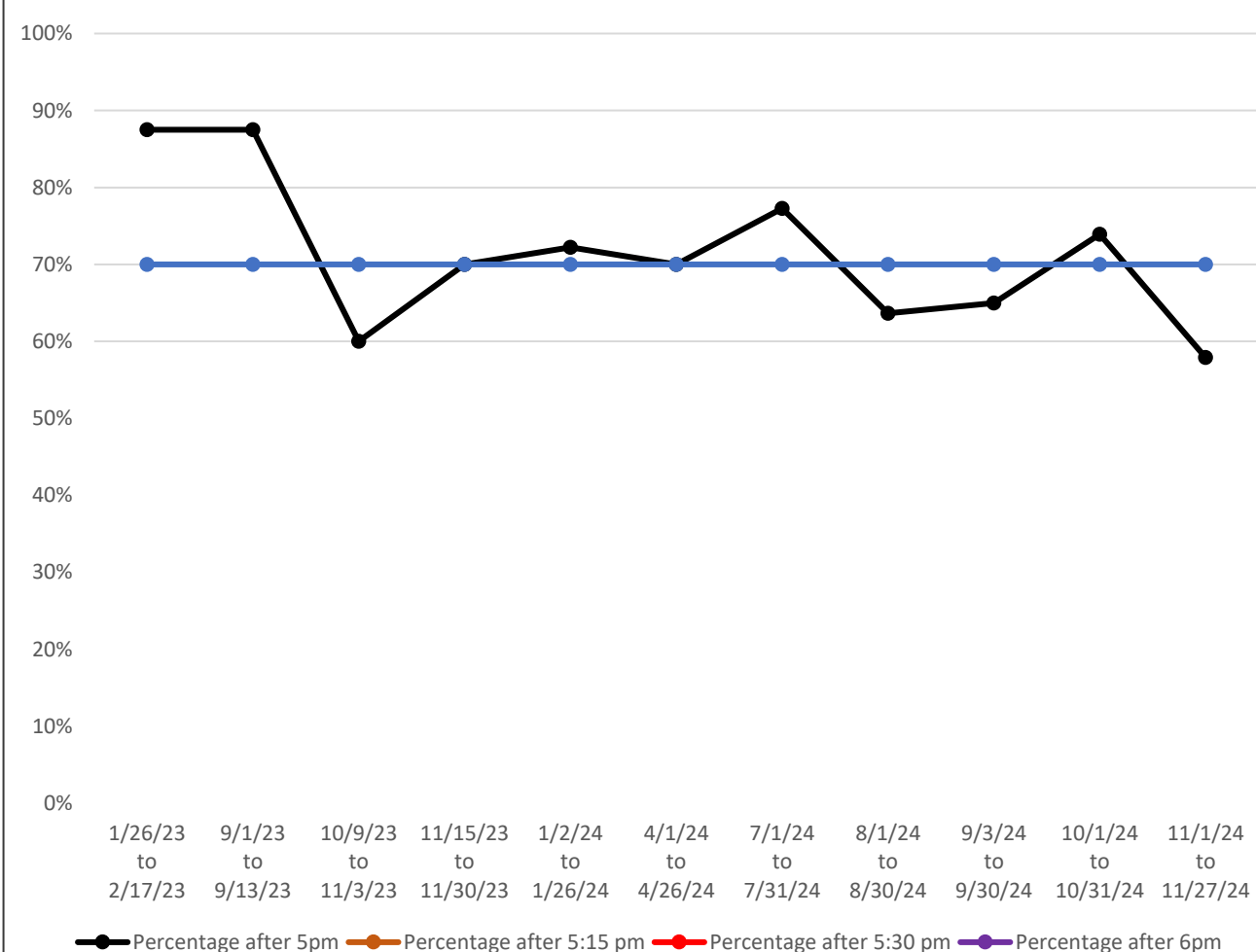


# Patient and Staff Satisfaction

## Patient Experience Data

### Improved Staff Satisfaction – Decreased Late Days

Percent of Days with Patients Checked Out after 5 PM



ECU PEDS ENDOCRINOLOGY	10/01/2022 - 09/30/2023		10/01/2023 - 09/30/2024	
Questions	n	Top Box	n	Top Box
<b>Moving Through Your Visit Overall</b>	<b>158</b>	<b>71.1</b>	<b>133</b>	<b>75.9</b>
Information about delays	153	69.9	124	78.2
Wait time at clinic	158	72.2	133	73.7

ECU PEDS GASTROENTEROLOGY	10/01/2022 - 09/30/2023		10/01/2023 - 09/30/2024	
<b>Moving Through Your Visit Overall</b>	<b>104</b>	<b>58.6</b>	<b>128</b>	<b>59.5</b>
Information about delays	100	58.0	125	59.2
Wait time at clinic	103	59.2	127	59.8

ECU PEDS INFECTIOUS DISEASE	10/01/2022 - 09/30/2023		10/01/2023 - 09/30/2024	
<b>Moving Through Your Visit Overall</b>	<b>4</b>	<b>50</b>	<b>14</b>	<b>78.6</b>
Information about delays	4	50	14	78.6
Wait time at clinic	4	50	14	78.6

ECU PEDS NEPHROLOGY	10/01/2022 - 09/30/2023		10/01/2023 - 09/30/2024	
<b>Moving Through Your Visit Overall</b>	<b>65</b>	<b>69.1</b>	<b>73</b>	<b>69.7</b>
Information about delays	62	66.1	72	69.4
Wait time at clinic	64	71.9	73	69.9

ECU PEDS PULMONARY	10/01/2022 - 09/30/2023		10/01/2023 - 09/30/2024	
<b>Moving Through Your Visit Overall</b>	<b>45</b>	<b>76.1</b>	<b>66</b>	<b>67.2</b>
Information about delays	43	81.4	65	67.7
Wait time at clinic	45	71.1	66	66.7

# Conclusions & Lessons Learned

- Since January of 2023, the average total visit time at the ECU Health Pediatric Specialty Clinic has decreased by 5 minutes.
- Elevated staff turnover (53%) and vacancy (17%) rates posed a challenge to our initial focus to simply increase the number of staff at patient care checkpoints.
- System-wide changes to patient messaging may have negatively impacted patient flow in our individual clinic.
- Incorporating a dedicated lab phlebotomist had the greatest impact on the visit time by standardizing the lab process and allowing our clinic staff to focus on patient check-in and triage with improved staff satisfaction.
- Despite not meeting our aim, we have seen a decrease in late days (improved staff satisfaction) and improvement in our patient experiences scores.
- Moving forward, we will continue to work on stabilization of our current work-force incorporating creative solutions to work-flow challenges such as the implementation of an automated point of care lab result system (with EPIC) to decrease time required for triage.

Global Aim: To provide safe, highly reliable, EFFICIENT, human-centered care while maintaining staff satisfaction and preserving the meaningful time patients spend with their providers.