



OUR PATIENTS



OUR PEOPLE



OUR STEWARDSHIP

MECKLENBURG BOARD OF COUNTY COMMISSIONER UPDATE

November 2023

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OVERVIEW

- ✱ Why: Appropriate resource allocation & patient prioritization
- ✱ What: Resource type, mode, and time targets
- ✱ When: Effective April 17, 2023
- ✱ Who: Collaborative project under guidance of Medical Direction
 - Medic Agency Board of Commissioners/Medical Control Board
 - Charlotte Fire Department
 - Mecklenburg County Fire Departments/ETJs
 - Charlotte-Mecklenburg Police Departments
 - County law enforcement agencies

OVERVIEW:

Predictions

- ✚ No adverse impact to patient outcomes
- ✚ Improved resource alignment based on patient condition
- ✚ Reduction of lights and sirens responses
- ✚ Reduction of traffic accidents
- ✚ Reduction of first responder volume



PUBLIC OUTREACH PRE-LAUNCH

- ✱ 16 formal meetings/presentations (all county districts)
- ✱ Traditional media & paid social media campaign
- ✱ Public resource website w/ language translation feature
- ✱ Promotional partnerships with Mecklenburg County, towns/city government, first responder partners, and the Charlotte-Mecklenburg Community Relations team (bilingual outreach)
- ✱ Ongoing focus of 911 education

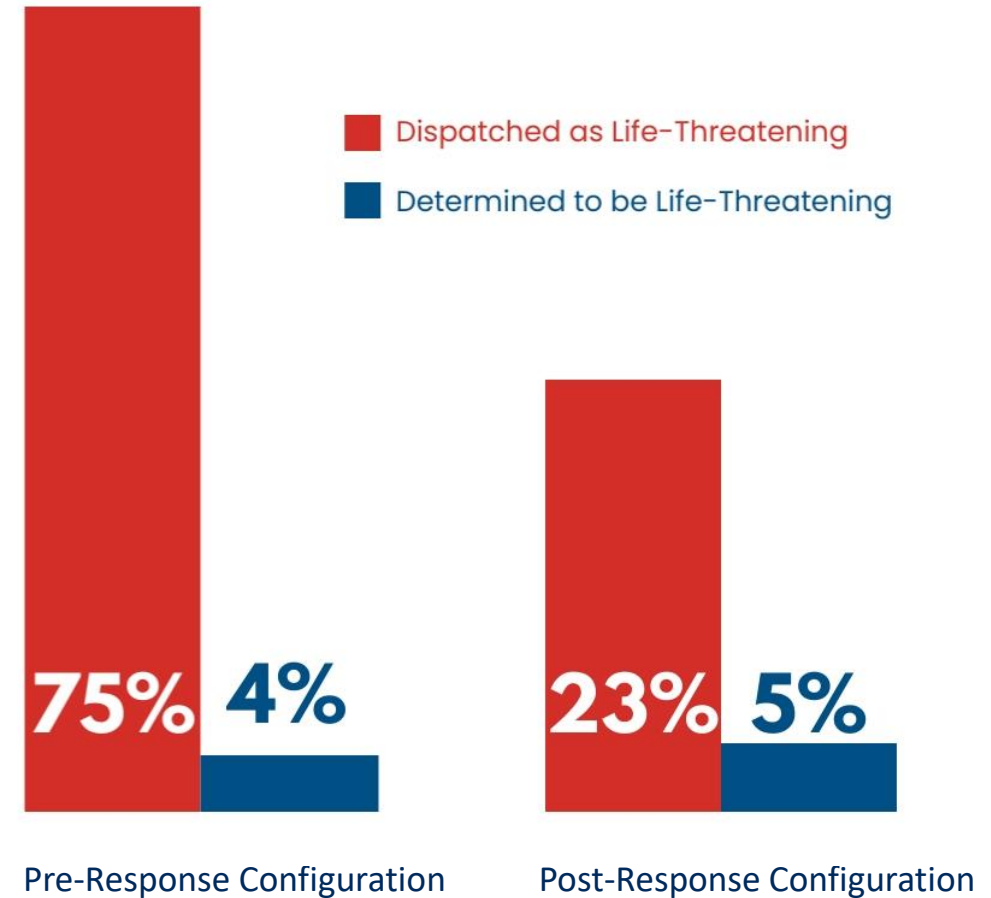
CHANGES POST-LAUNCH

- ✚ Maintained feedback mechanism with first responders and employees
 - Resulted in updates to Standard Operating Guidelines
- ✚ Re-classified 6 call types to a higher priority response
 - Modified 32 sub-determinants
- ✚ Discontinued practice of dispatching an ambulance prior to understanding patient's condition
- ✚ Data management

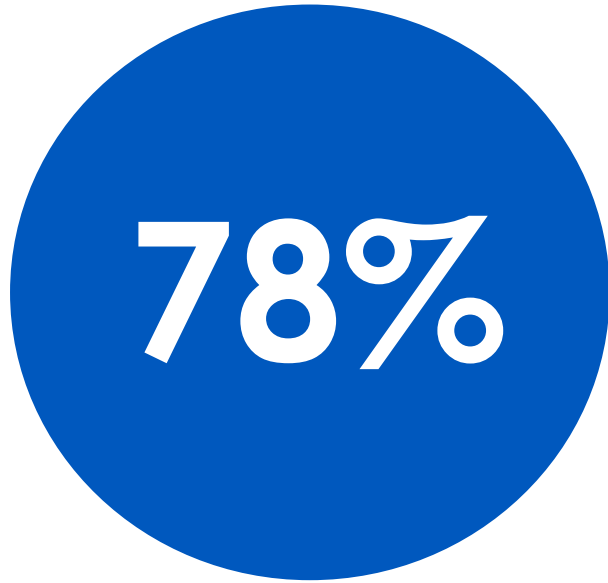
IMPACT: Medic Lights & Sirens Responses & Transports

✚ Pre-response configuration, Medic responded to **9,506** 911 calls with lights & sirens on average per month vs **2,863** per month post-response configuration; a reduction of **70%**

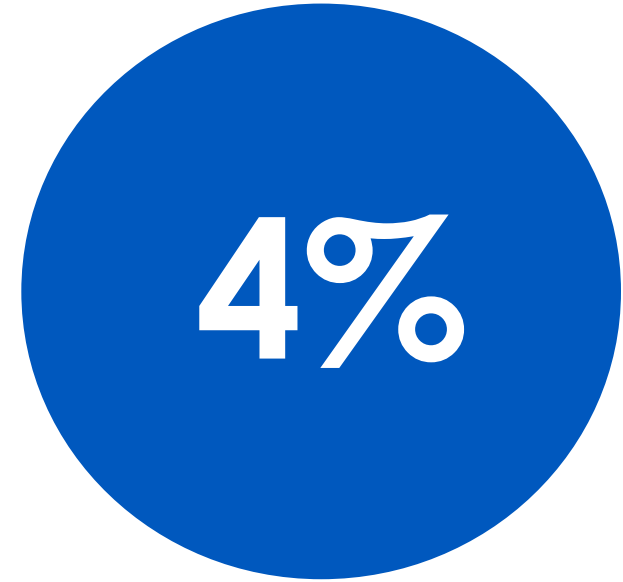
Prediction: 72%



IMPACT: Medic involved traffic accidents



Reduction in Medic involved traffic accidents responding with lights and sirens (**2.25 average per month** pre-response configuration vs. **.5 per month** post-response configuration)



Overall reduction in Medic involved traffic accidents (**11.25 average per month** pre-response configuration vs. **10.8 per month** post-response configuration)

IMPACT: First Responder Volume & scene times



17%

A seventeen percent decrease of the number of EMS 911 calls fire departments responded to countywide

Prediction:
10%



0:1:16

One minute and 16 second increase to the amount of time fire departments were on scene for EMS 911 calls countywide

Prediction:
≤ 0:02:00

IMPACT: Call volume

Predicted vs Actual Call Volume Percentages							
Response Time Standard	10:59	15:00	30:00	60:00	90:00	ON/OP/OC	FR Only
% of call volume pre-change	20%	49%	0%	22%	0%	9%	0%
Predicted % of call volume	19%	18%	25%	10%	.1%	9%	19%
Actual % of call volume post change May 2023-Sept 2023	22%	31%	20%	12%	1%	1%	13%

Morbidity

Is Medic appropriately treating patients with the most serious conditions?

Mortality

Has the rate of mortality increased?

CLINICAL IMPACT: Low acuity responses resulting in a high priority transport

PRE-RESPONSE CONFIGURATION APRIL 2022-MARCH 2023	
Total Transported P1	244
Total Low Acuity Calls	39,623
% Low Acuity That Go P1	.6%

POST-RESPONSE CONFIGURATION MAY-SEPTEMBER 2023	
Total Transported P1	274
Total Low Acuity Calls	27,236
% Low Acuity That Go P1	1%

- 911 calls categorized as non-life threatening that resulted in a high priority response happened 1% of the time after Response Configuration launch, which is **better than predicted**.

CLINICAL IMPACT: Cardiac Arrests

Month	Total Cases	Total ROSC
May 2022	78	27
June 2022	72	27
July 2022	75	22
Aug 2022	60	18
Sep 2022	82	26
Oct 2022	74	22
Total	441	142

Month	Total Cases	Total ROSC
May 2023	71	27
June 2023	74	26
July 2023	71	27
Aug 2023	75	27
Sep 2023	91	29
Oct 2023	59	23
Total	441	159

Medic achieved ROSC **36%** of the time post-response configuration changes vs. **32%** pre-response configuration. Medic continues to perform well above the national average of **27%**

| **CLINICAL IMPACT:** Mortality

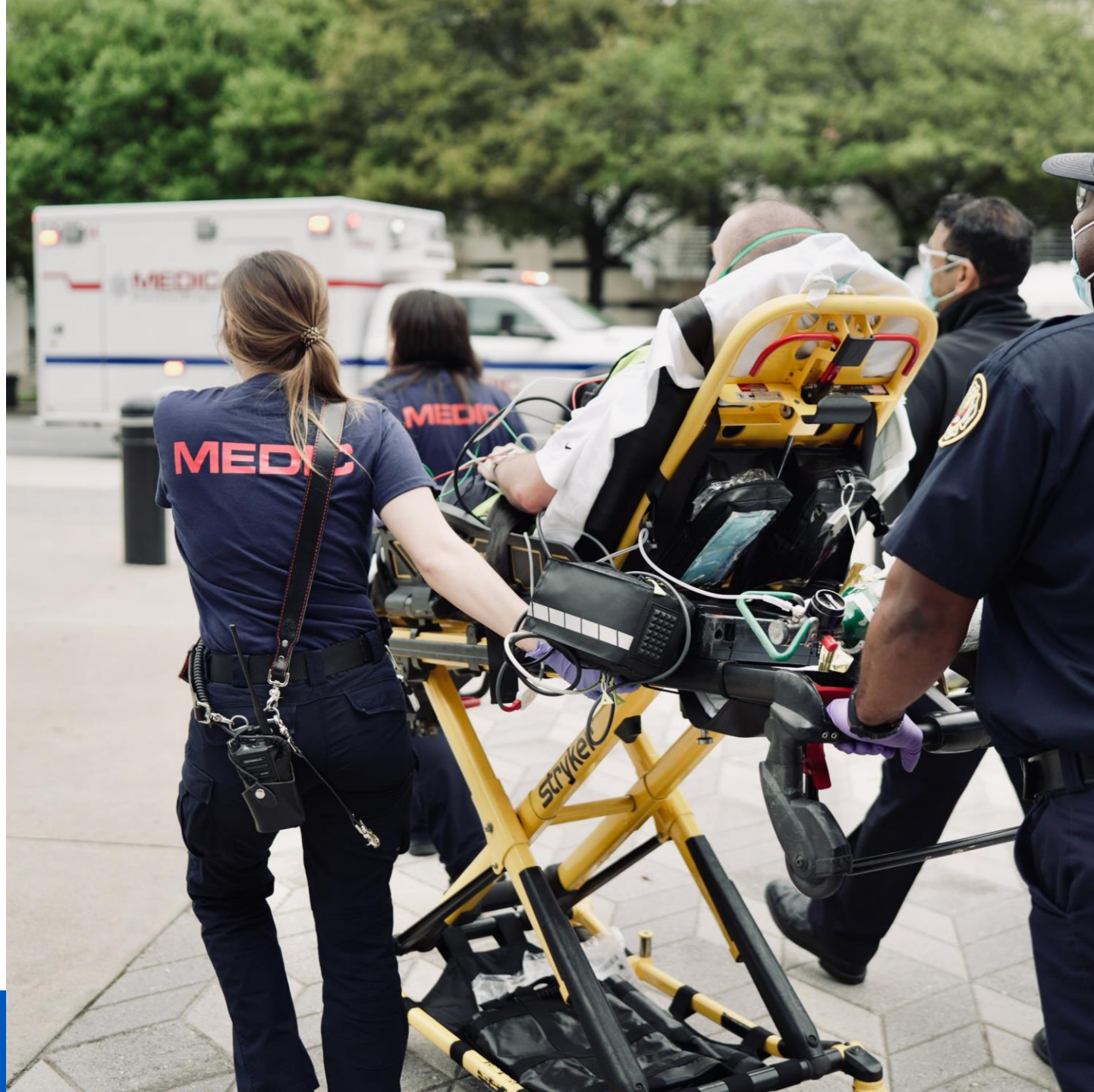
	May-September 2022	May-September 2023
Mortality Count	618	565
Total 911 Incidents	51,841	52,411

- Medic has seen no significant change in the number of patients with documented termination of resuscitation prior to transport post-response configuration change.

OVERVIEW:

Outcomes

- ✓ No adverse impact to patient outcomes
- ✓ Improved resource alignment based on patient condition
- ✓ Reduction of lights and sirens responses
- ✓ Reduction of traffic accidents
- ✓ Reduction of first responder volume



STATE OF EMS

Wisconsin's EMS agencies describe a system in crisis

Staffing shortages and funding gaps in Wisconsin have caused emergency medical services to become unreliable and some EMS operations have closed, putting communities at risk throughout the state.

The EMS Economic and Staffing Crisis Creates an Opportunity for Improved System Design

Using data to evaluate your community's EMS costs, ambulance staffing levels, and response time expectations to help prevent your EMS systems from collapsing.

METRO EXCLUSIVE



Response times to NYC crimes, fires and medical emergencies soar

Minn. ambulance service director warns city officials of danger of closing

Altura Ambulance Director Jessica Romine told local leaders the service could lose its license due to staffing problems

CALIFORNIA

Hospitals say too many people are calling 911 for non-emergencies

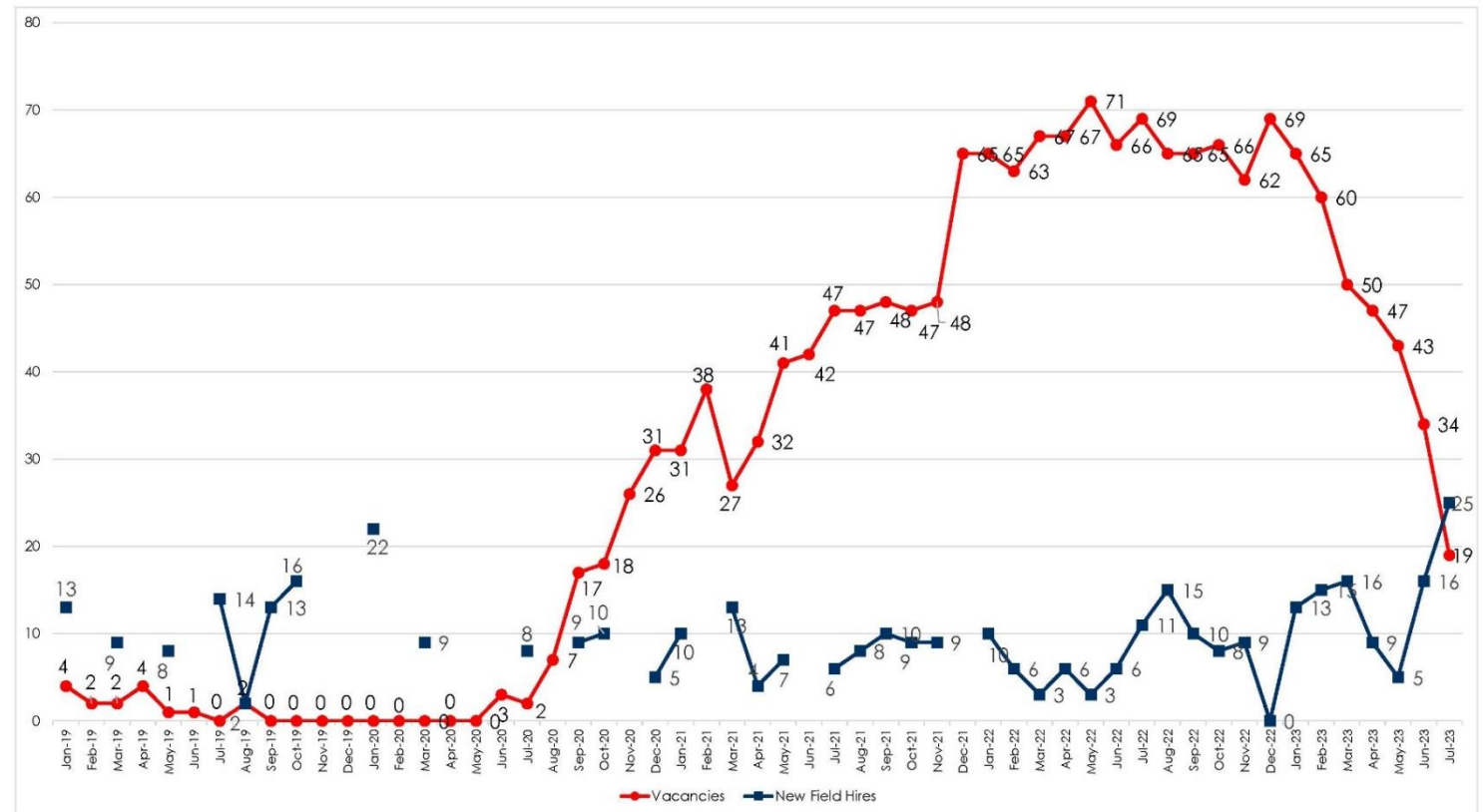
by: [Claudette Stefanian](#)

Posted: Aug 2, 2022 / 06:03 PM PDT

Updated: Aug 2, 2022 / 06:18 PM PDT

STAFFING UPDATE: Frontline Overall

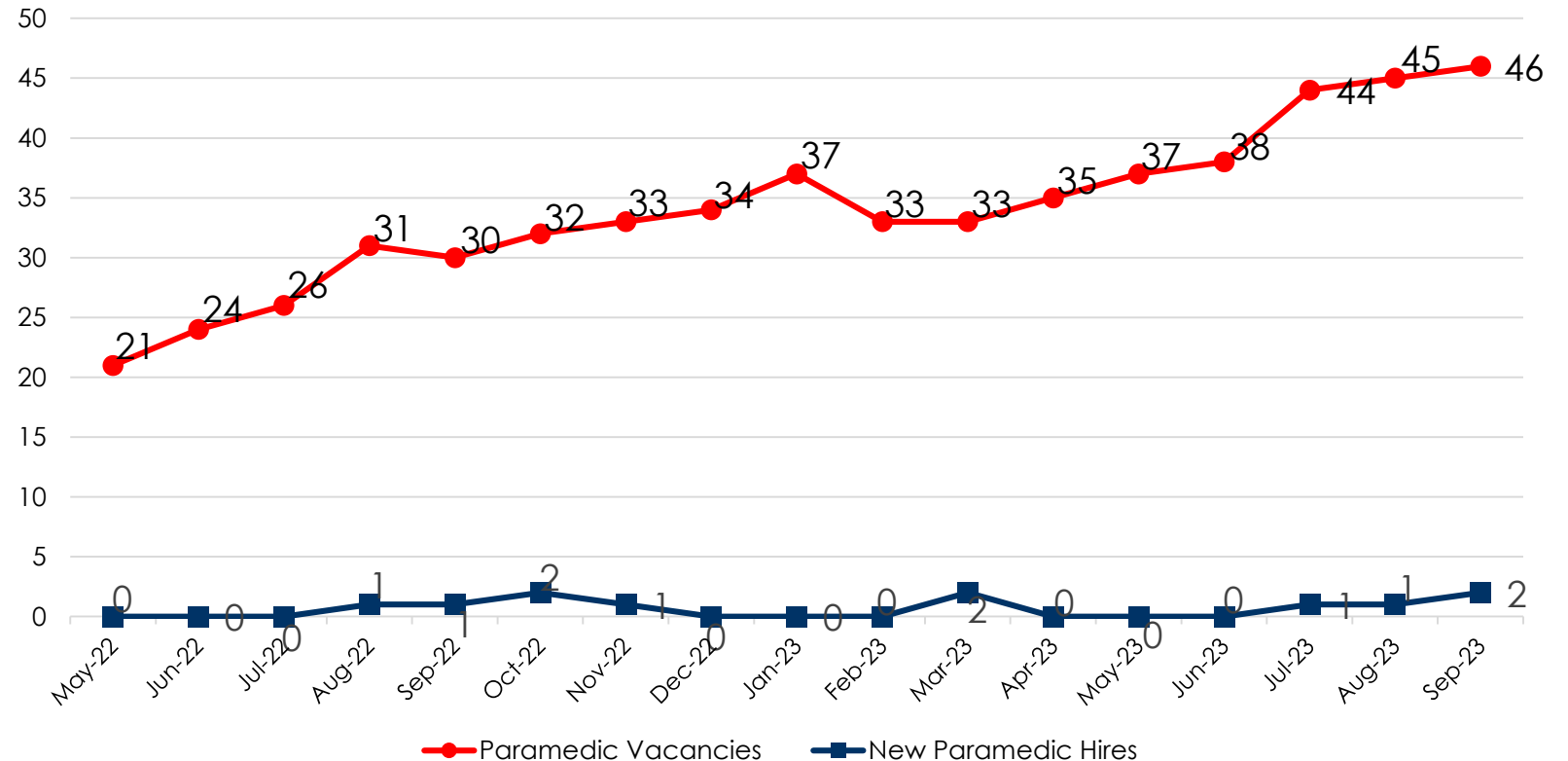
- ☘ Wage increases
- ☘ Compression alleviation
- ☘ OST-EMT program
- ☘ CPCC partnership



Red = Number of EMT and Paramedic vacancies by month; Blue = Number of EMT and Paramedic new hires by month

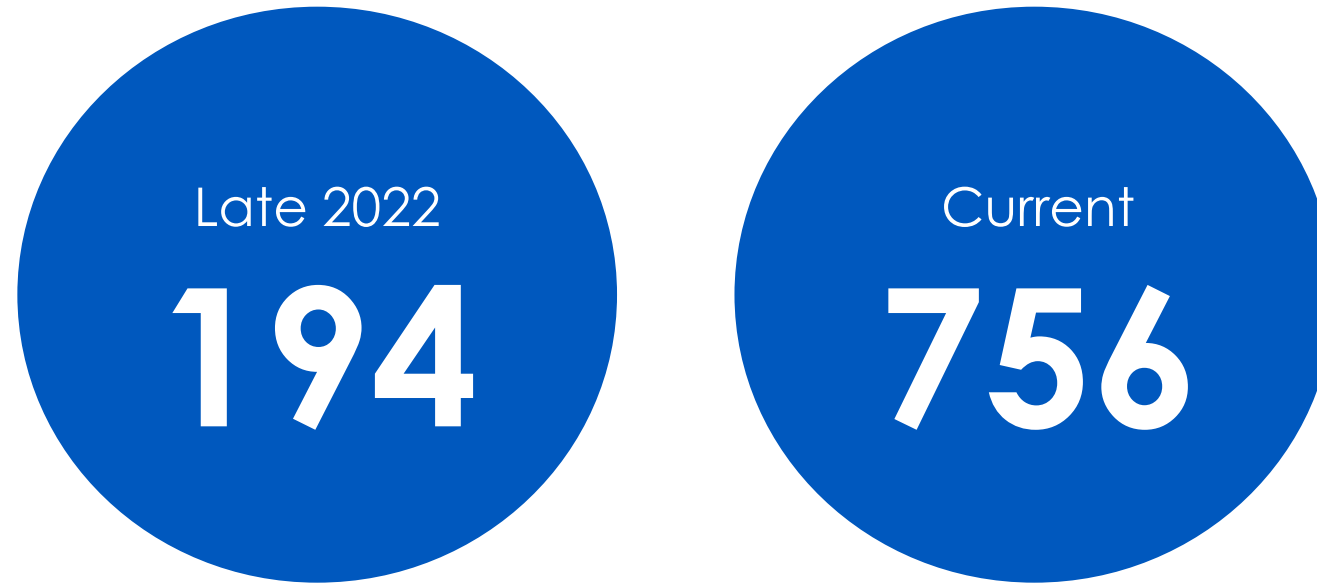
STAFFING UPDATE: Paramedics

- ✚ -46 Paramedics (25% vacancy rate)
- ✚ Priority 1 response growth 7% post-response configuration
- ✚ 10 current EMTs expected to graduate Paramedic school in December 2023



Red = Number of Paramedic vacancies by month; Blue = Number of Paramedic new hires by month

TIERED SYSTEM EVOLUTION: EMT responses



- The average number of weekly responses by a BLS ambulance increased by **290%**. Response configuration allowed this to happen.



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**DISCUSSION/
FEEDBACK**