Peer Review Clinical Data

3rd QUARTER 2024

Aaron Wenzel

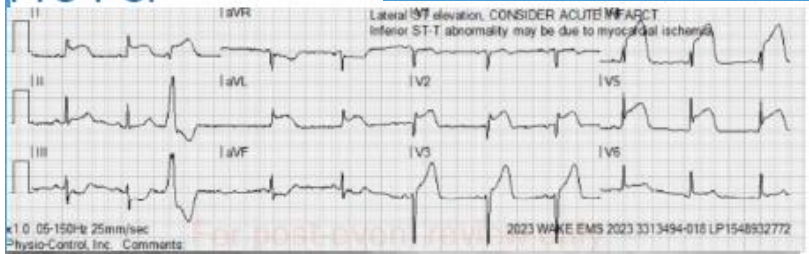
Chief Clinical Quality Officer

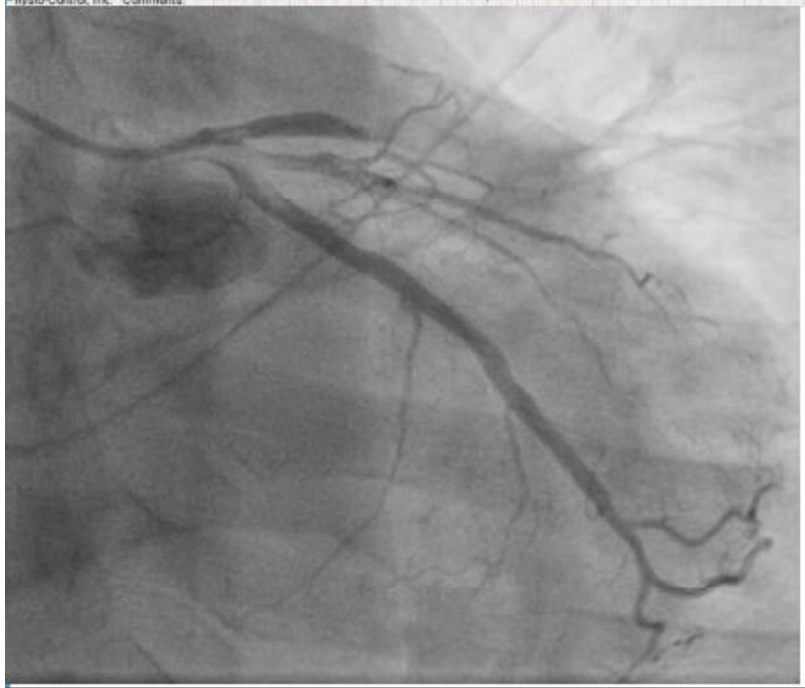
Division of Medical Affairs

November 21st, 2024

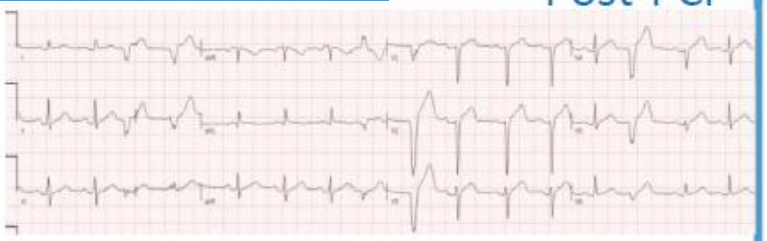
STEMI Outcome Report

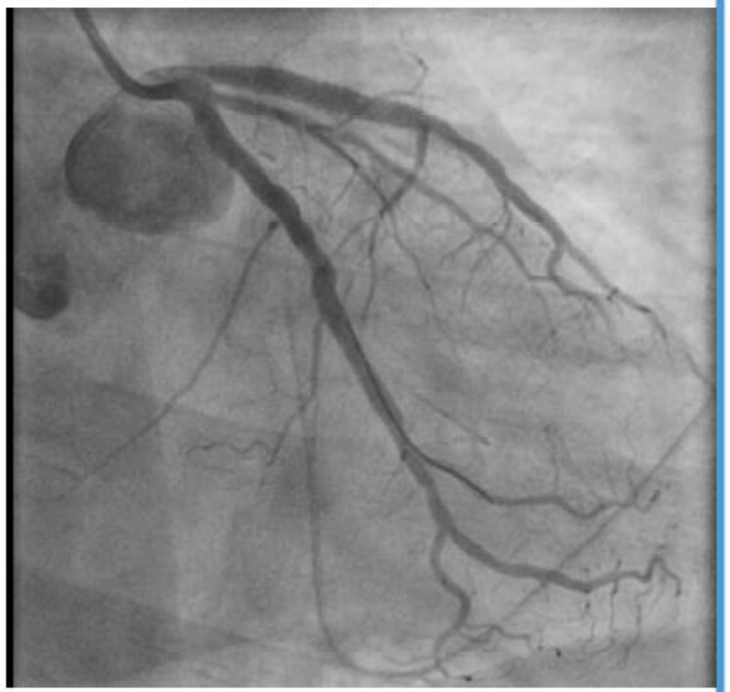
Pre-PCI





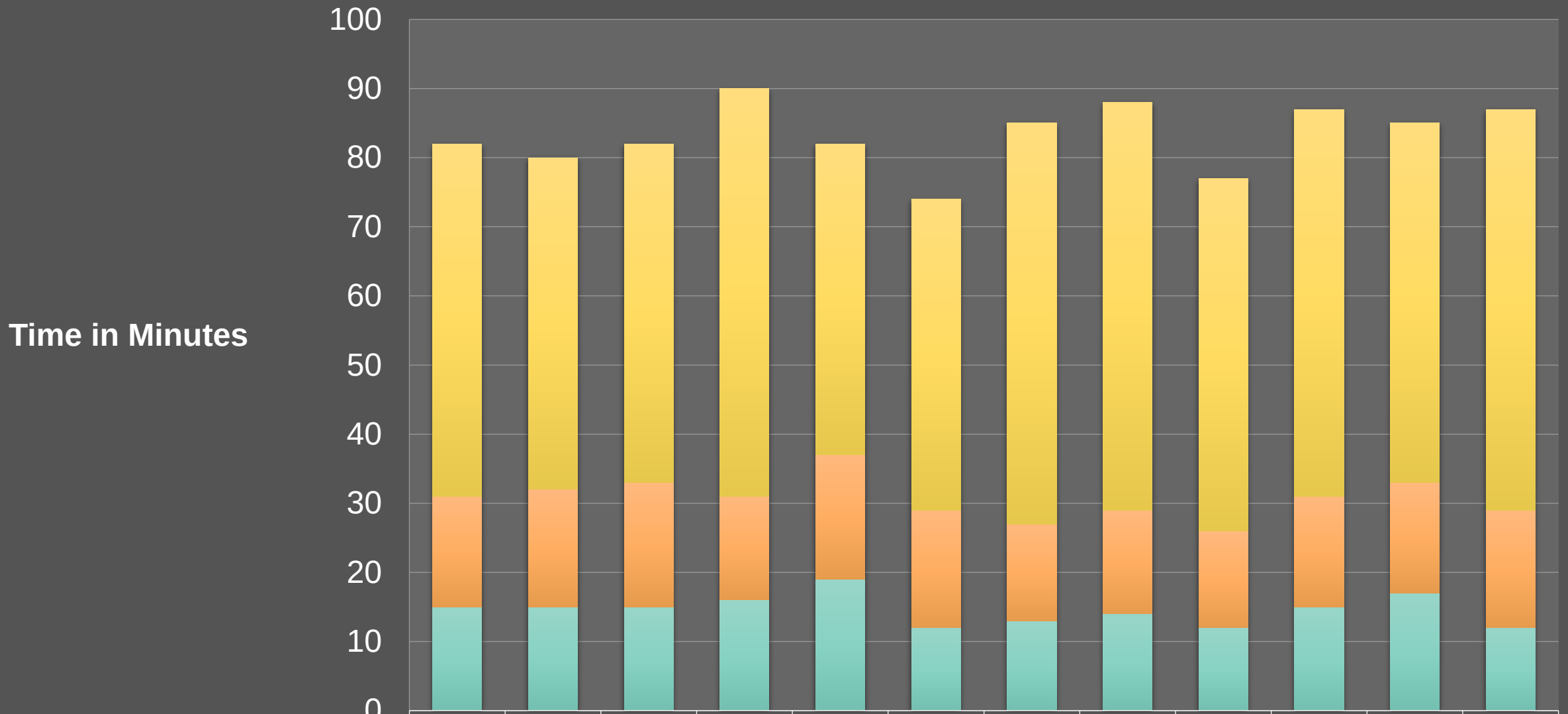
Post-PCI





CP	0	0	27	55	LAD	HOME
Chief Complaint	Time in ED	Cath Lab Ready	Door to Device	First Medical Contact to Device	VESSEL	DISPO

Mean Time for Patients with Confirmed STEMI; Combined for All Hospitals

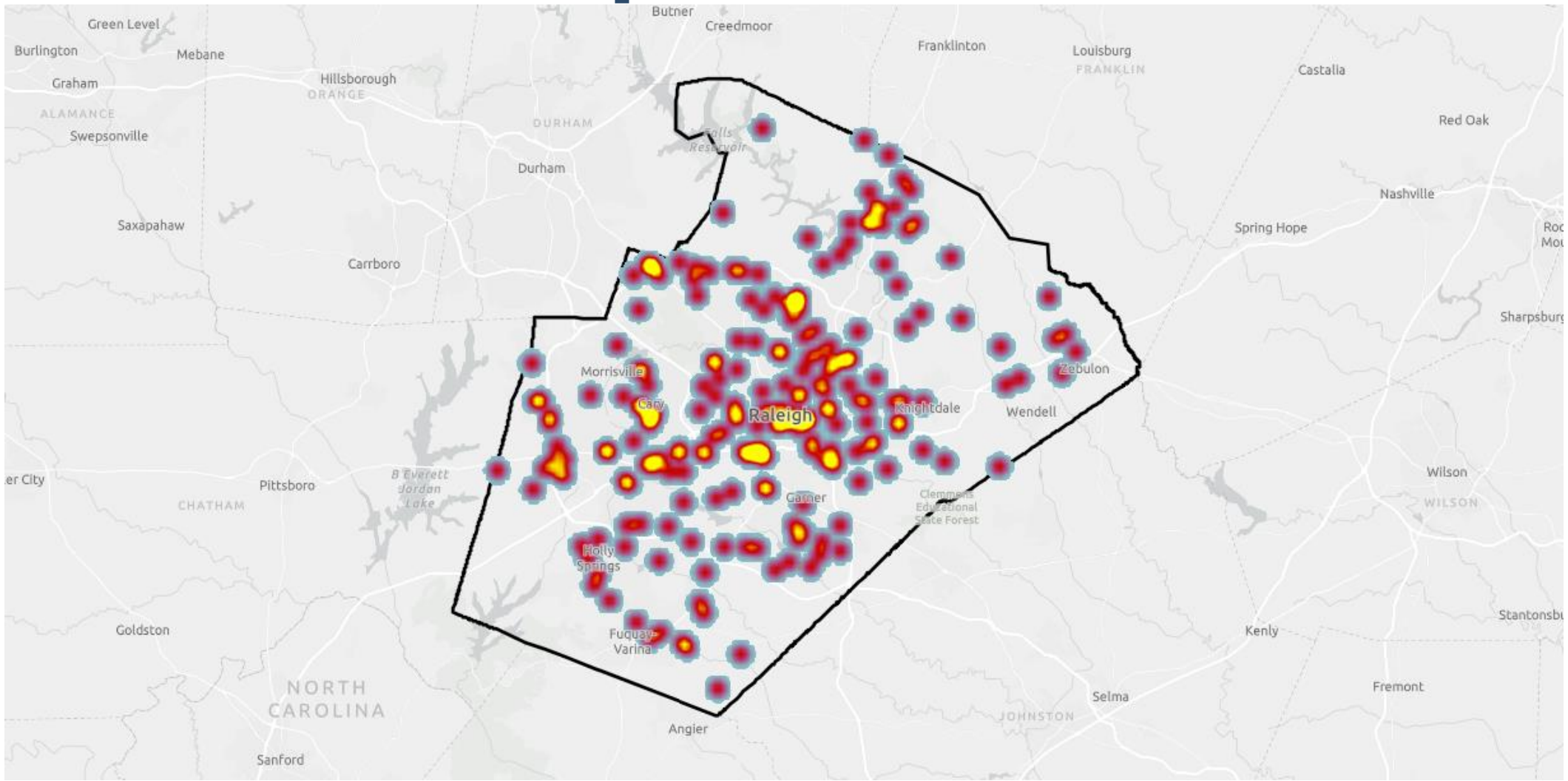


	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sept 24
Hospital Arrival to Intervention	51	48	49	59	45	45	58	59	51	56	52	58
Scene Departure to Hospital Arrival	16	17	18	15	18	17	14	15	14	16	16	17
1st Patient Contact to Scene Departure	15	15	15	16	19	12	13	14	12	15	17	12

EMS STEMI Evidence Based Medicine Measures
Patients Transported by EMS with Suspected or Confirmed STEMI

	3Q23 n=53	4Q23 n=68	1Q24 n=53	2Q24 n=52	3Q24 n=53
12 Lead	100%	100%	100%	100%	100%
ASA	100%	100%	100%	98%	100%
Scene Time<15 min	98%	99%	100%	98%	95%

STEMI Heat Map CY 2024



STEMI Overtriage – 2Q2024

STEMIs activated by EMS: 54

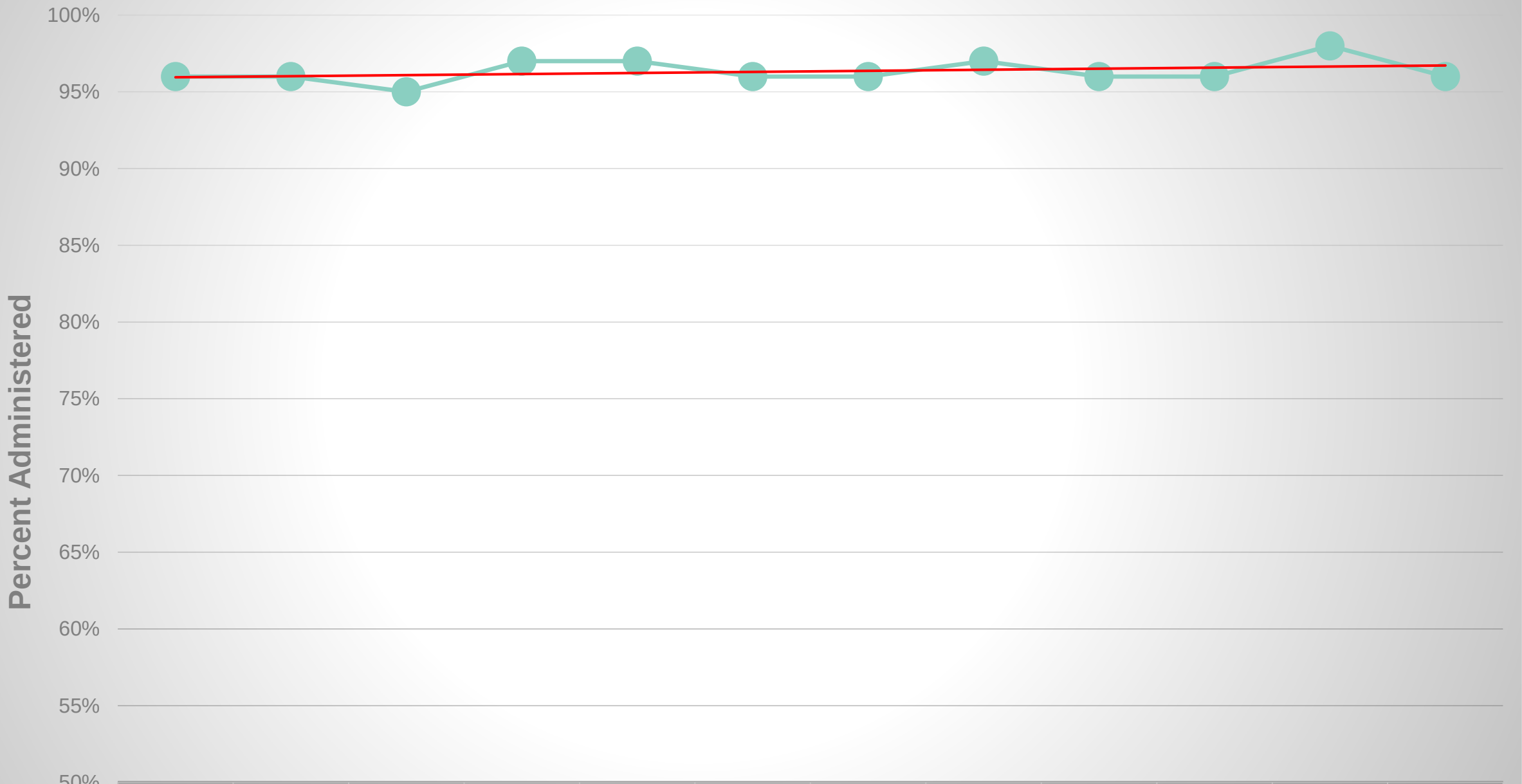
Total STEMI Activations cancelled as reported by hospitals: n= 26

- ED Activations sent for consult only by EMS: n= 6
- EMS did not activate or send for consult: n= 5

STEMIs activated by EMS that were cancelled by Hospital n= 15

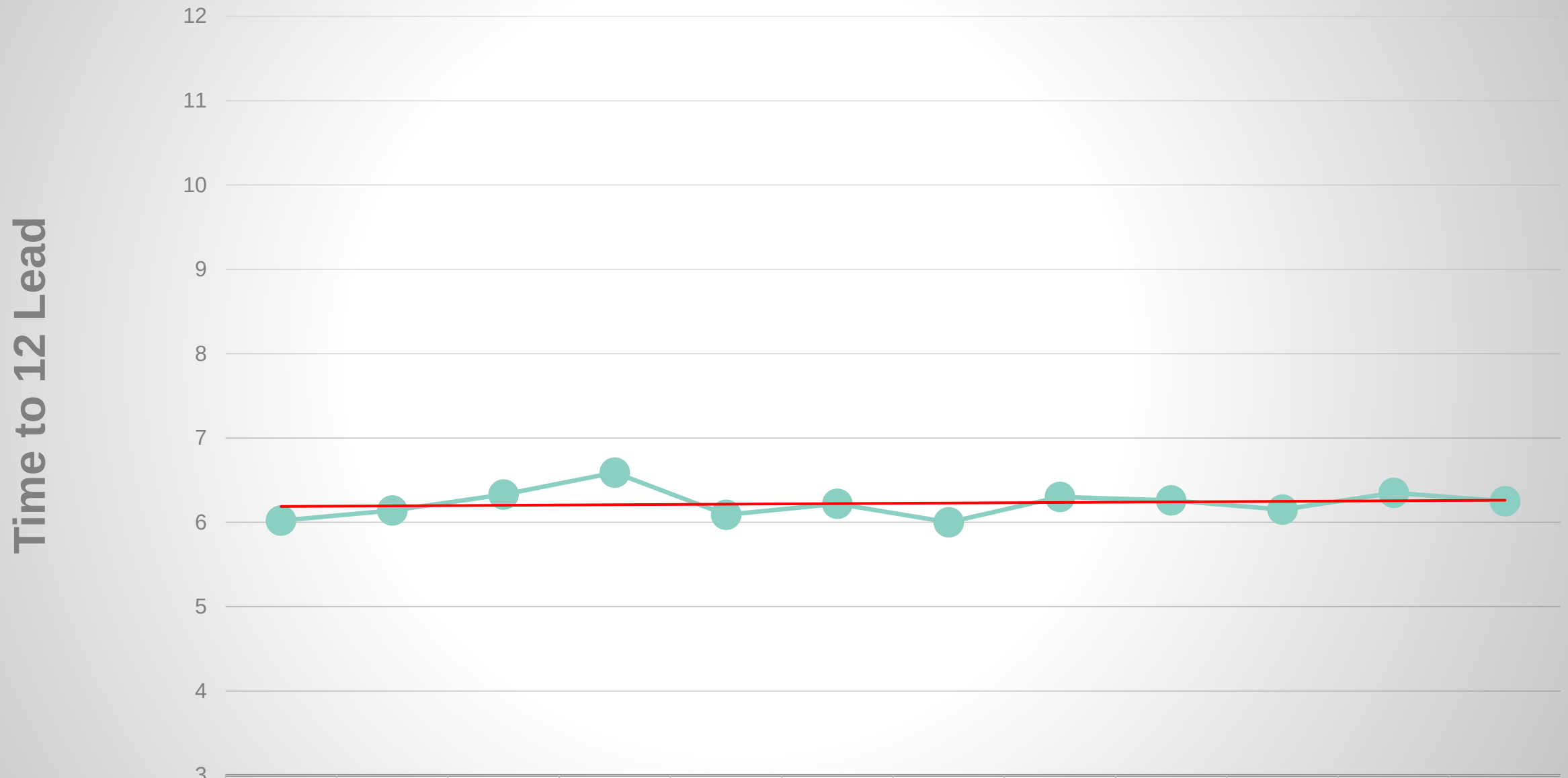
Category	Reason Cancelled	Final Disposition = Triage Correctly	Final Disposition = Over Triage
ED EKG Does Not Meet STEMI Criteria	5	5	0
ST Elevation Resolved	1	1	0
Expired	2	2	0
STEMI Imposter (LVH, J Point Elev., Etc)	3	2	1
Other	4	3	1
			4 % Overtriage Rate

Wake EMS
Chest Pain Patient Age>35 Who Had ASA Administered



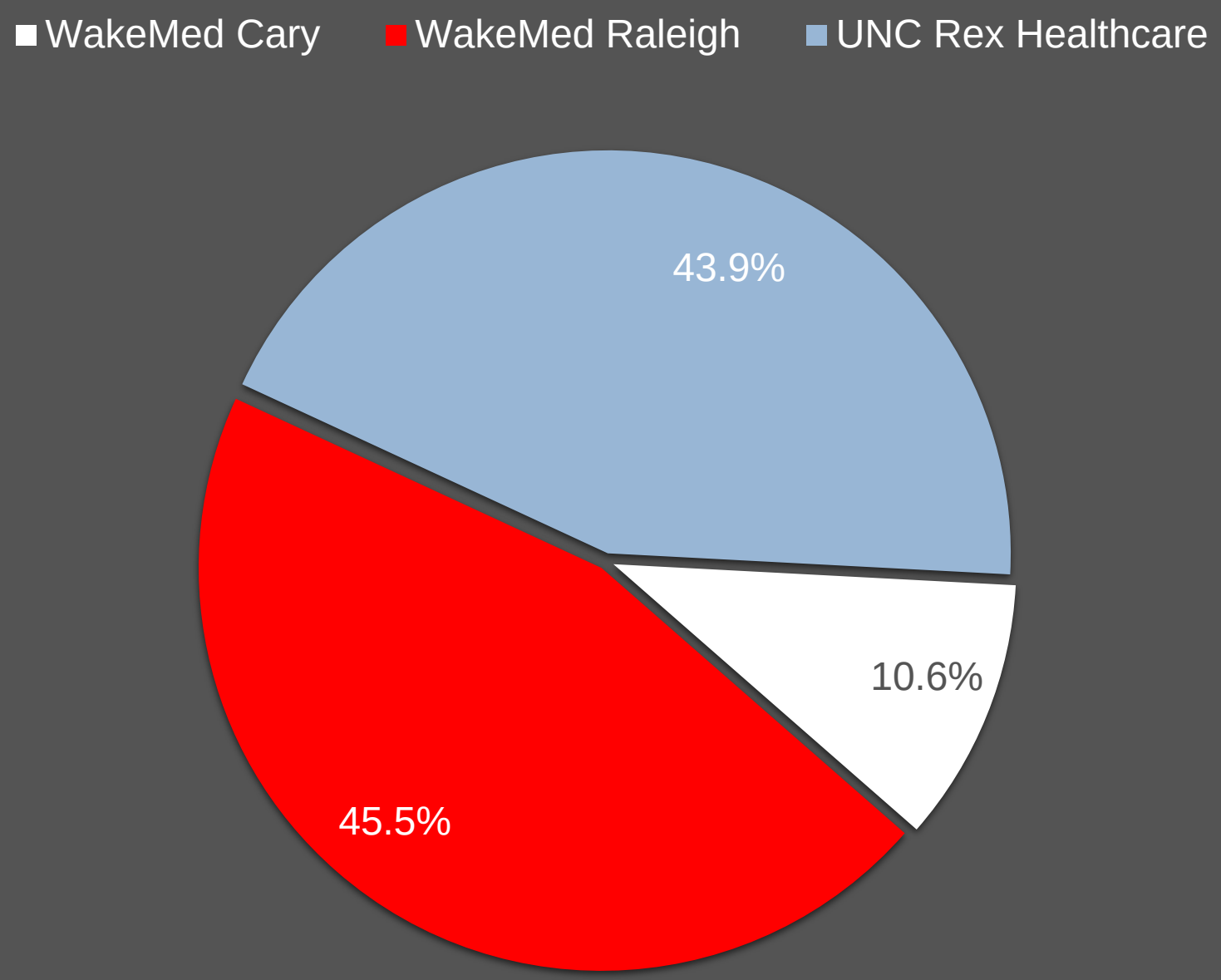
	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sept 24
ASA Administered	96%	96%	95%	97%	97%	96%	96%	97%	96%	96%	98%	96%

Wake EMS
Chest Pain Patient Contact to 12lead Time in Minutes



	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sept 24
Time to 12 Lead (min)	6.02	6.14	6.33	6.59	6.09	6.22	6	6.3	6.26	6.15	6.35	6.25

Destination for Wake EMS Patients with Suspected or Confirmed STEMI

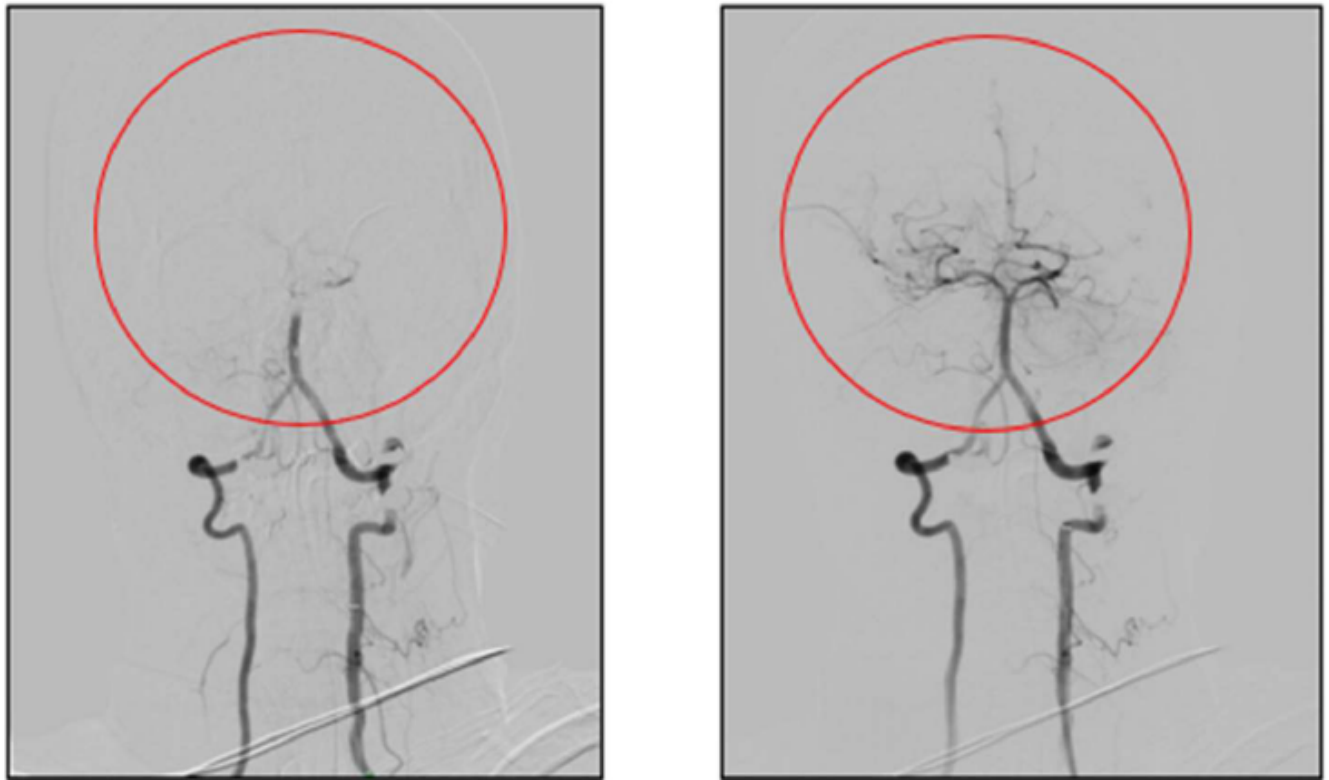


Stroke Outcome Report

SUMMARY

- [redacted] y.o female presented to ED. Per EMS, pt was found unresponsive in [redacted] EMS noted a dysconjugate gaze, right sided weakness and facial droop
- LKW 13:15 per daughter
- Initial NIHSS = 28 (LOC, gaze, weakness, language, dysarthria)
- CTA head/neck revealed a basilar tip, proximal left PCA and bilat SCA acute occlusions

BEFORE **vs.** **AFTER**



Arrival Time	16:38
CODE STROKE *55	16:42
LKW MD Notes	13:15
GROIN	17:47
FIRST PASS	17:56
FINAL TICI	3
CODE STROKE CALCULATIONS	
LKW to Arrival	3:23
IA CALCULATIONS	
DOOR TO GROIN Goal < 90 min	1:09
GROIN TO TICI 2B Goal < 60min	0:10

EMS INCIDENT NUMBER

[redacted]

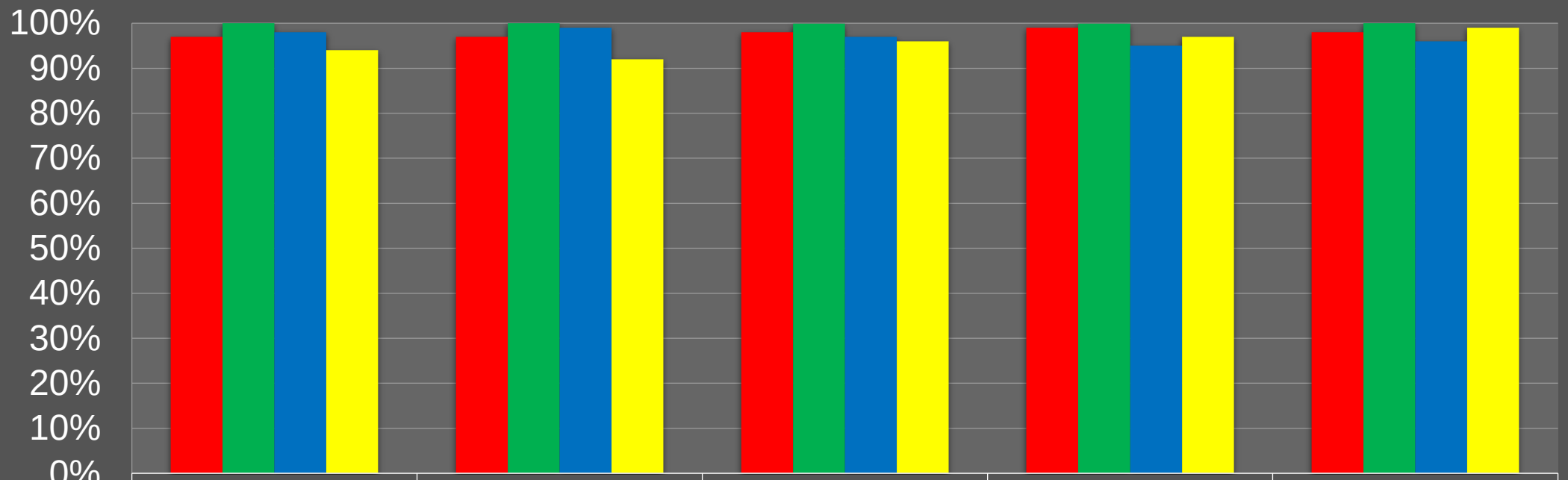
PROCEDURAL OUTCOMES

- Occlusion of distal basilar artery. Initial TICI = 0
- Successful thrombectomy with final TICI = 2C

CLINICAL OUTCOMES

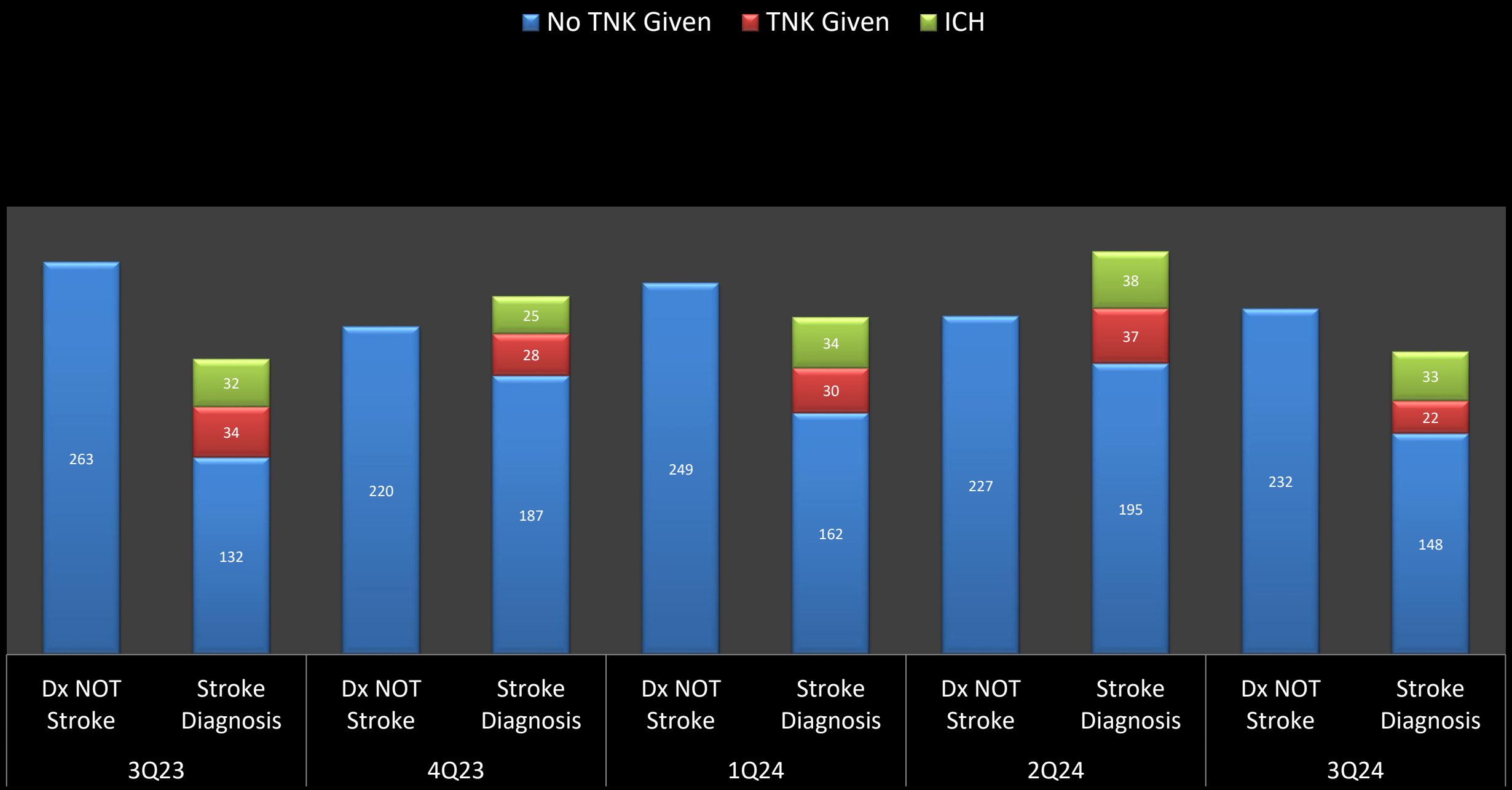
- As of [redacted] = pt remains intubated at this time

EMS Stroke Evidence Based Medicine Measures
Patients Transported by EMS with Suspected or Confirmed Stroke

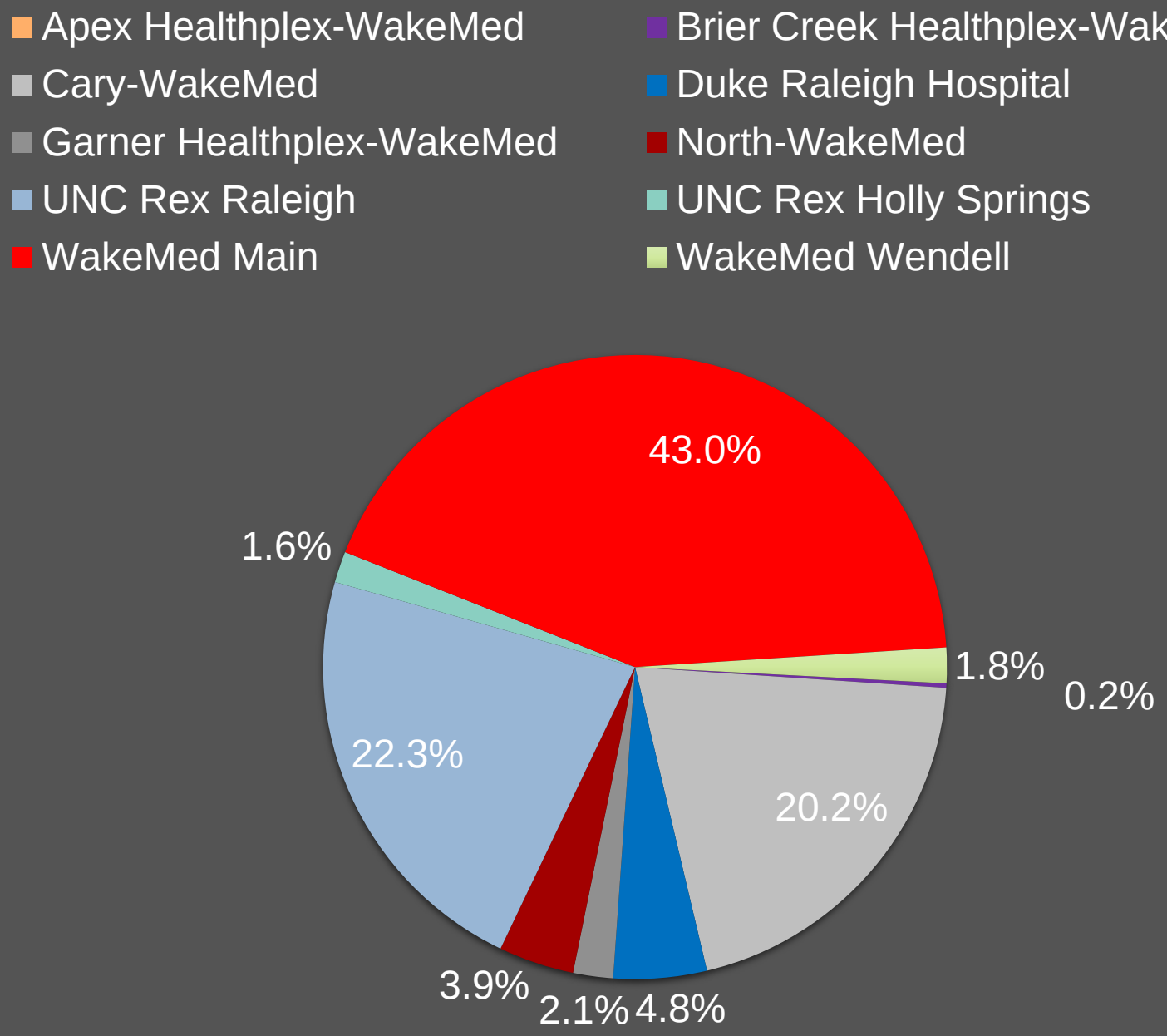


	3Q23 n= 314	4Q23 n= 292	1Q24 n=301	2Q24 n=331	3Q24 n=300
12 Lead	97%	97%	98%	99%	98%
BGL	100%	100%	100%	100%	100%
Scene Time Justified	98%	99%	97%	95%	96%
Blood Draw	94%	92%	96%	97%	99%

Code Strokes by EMS taken to Wake County Hospitals



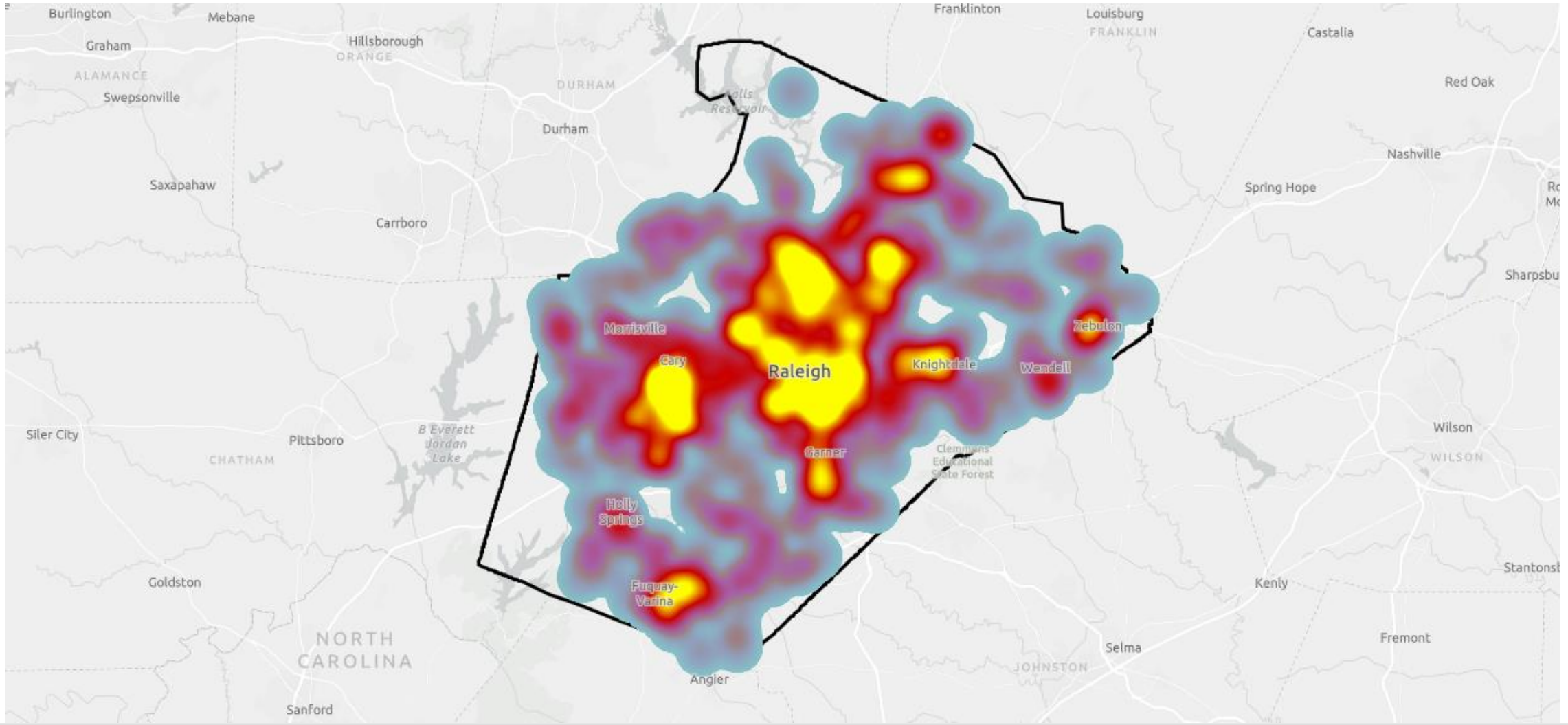
Destination for Wake EMS Patients with Suspected or Confirmed Stroke



Interventional Stroke Report

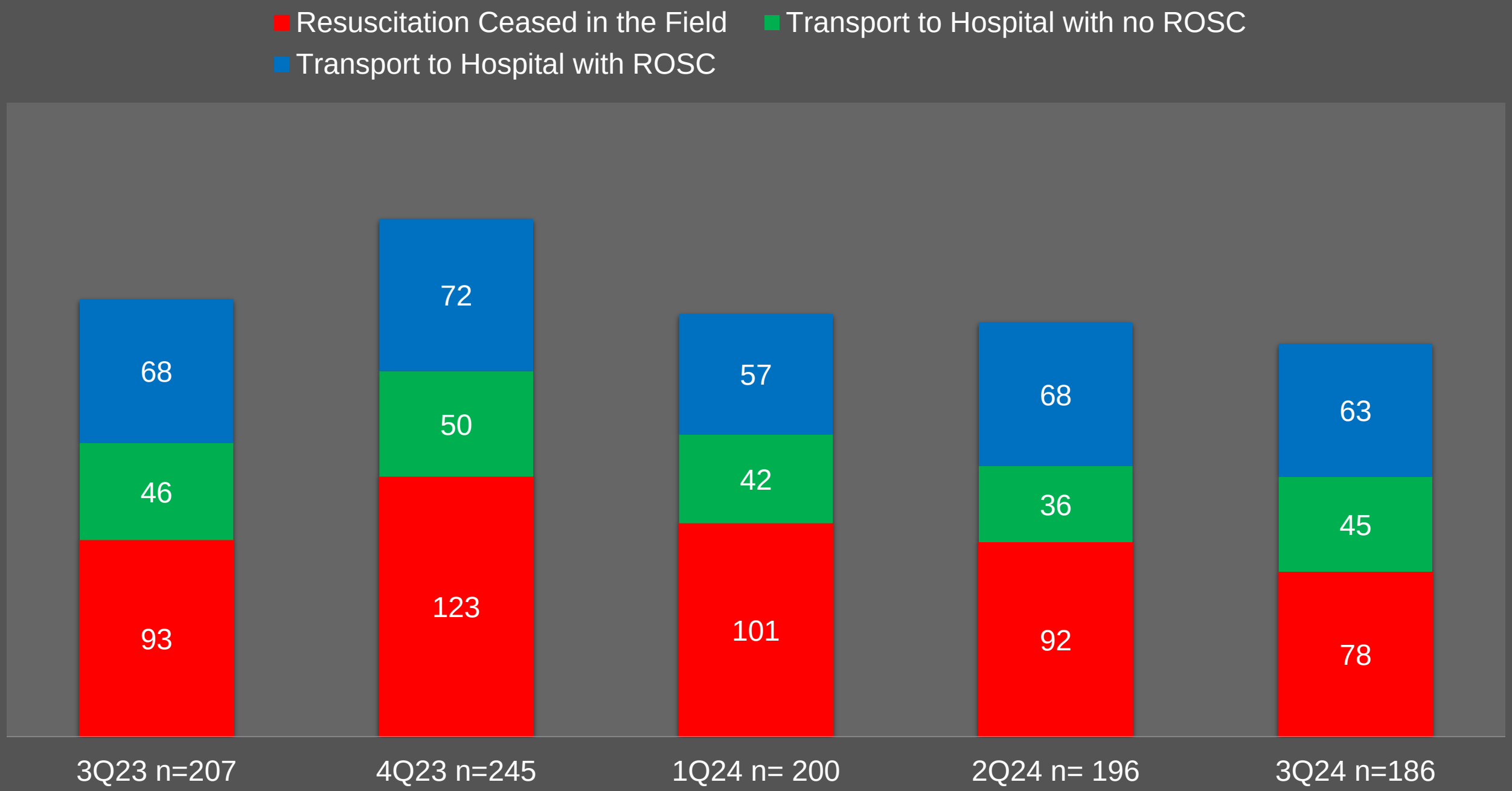
Date	Initial Hospital	Intervention Type	Intervention Performed	TICI
01-Jul-24	WakeMed Cary	IA	Thrombectomy	2b
12-Jul-24	WakeMed Raleigh Campus	TNK-IA	Thrombectomy	3
27-Jul-24	WakeMed Raleigh Campus	IA	Thrombectomy	3
01-Aug-24	WakeMed Raleigh Campus	IA	None	N/A
03-Aug-24	Duke Raleigh Hospital	IA	Thrombectomy	3
10-Aug-24	WakeMed Raleigh Campus	TNK-IA	Thrombectomy	2b
11-Aug-24	WakeMed Cary	IA	Thrombectomy	2b
14-Aug-24	WakeMed Cary	TNK-IA	Thrombectomy	3
15-Aug-24	WakeMed Cary	IA	Thrombectomy	2a
16-Aug-24	WakeMed Raleigh Campus	TNK-IA	Thrombectomy	3
19-Aug-24	WakeMed Raleigh Campus	IA	Thrombectomy	2a
20-Aug-24	UNC Rex Healthcare	TNK/IA	Thtombectomy	3
21-Aug-24	WakeMed Raleigh Campus	IA	Thrombectomy	3
24-Aug-24	WakeMed Raleigh Campus	IA	Thrombectomy	3
26-Aug-24	WakeMed Cary	IA	Thrombectomy	0
28-Aug-24	UNC Rex Holly Springs	None / Improved after transfer	None	N/A
01-Sep-24	WakeMed Cary	IA	Thrombectomy	3
10-Sep-24	UNC Rex Healthcare	IA	Thrombectomy	2C
12-Sep-24	WakeMed Cary	IA	Thrombectomy	3
25-Sep-24	WakeMed Cary	TNK-IA	Thrombectomy	3

Stroke Heat Map CY2024

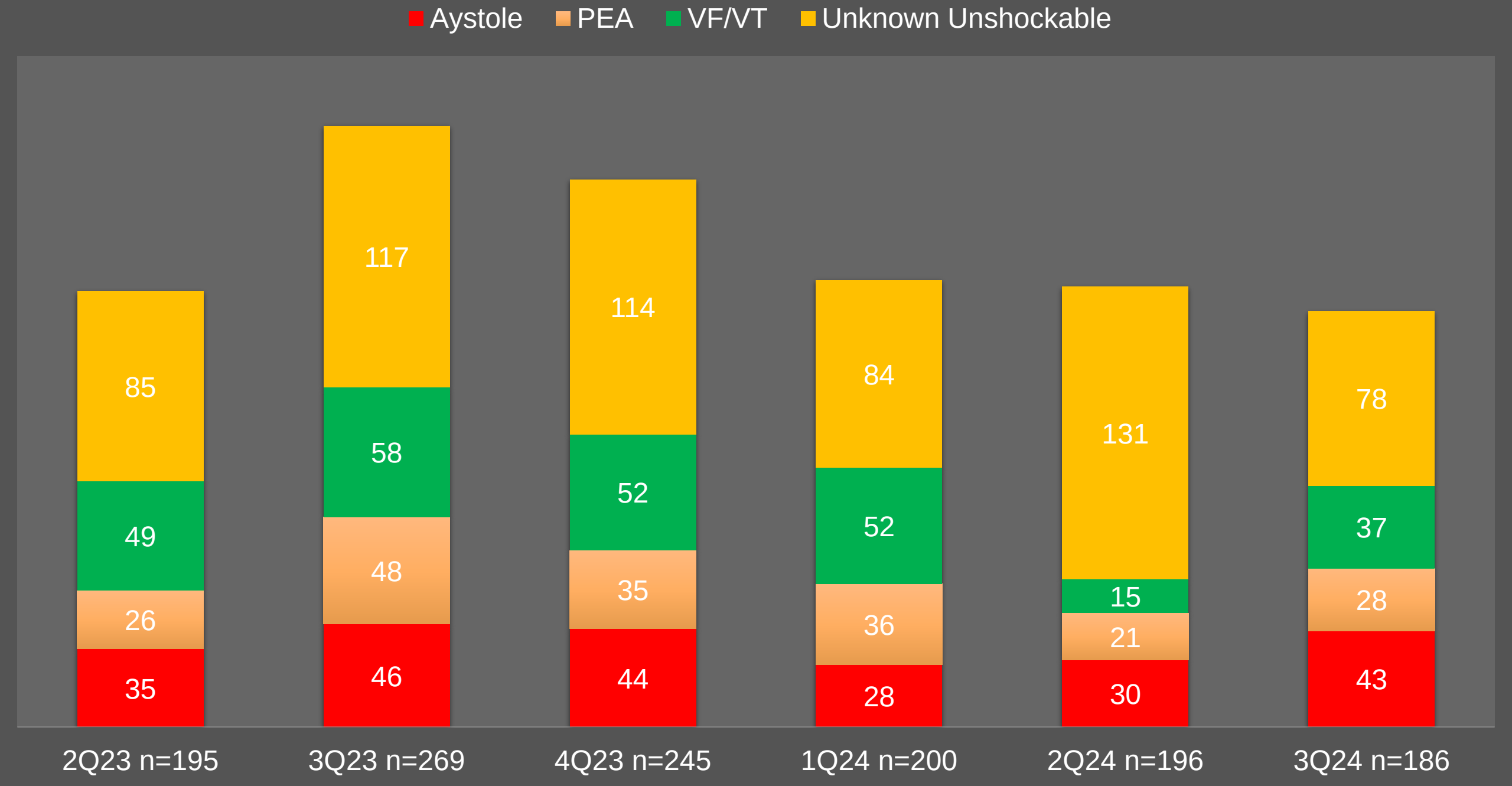


Cardiac Arrest

Cardiac Arrest: Disposition for Attempted Resuscitations



Cardiac Arrest Initial Rhythm



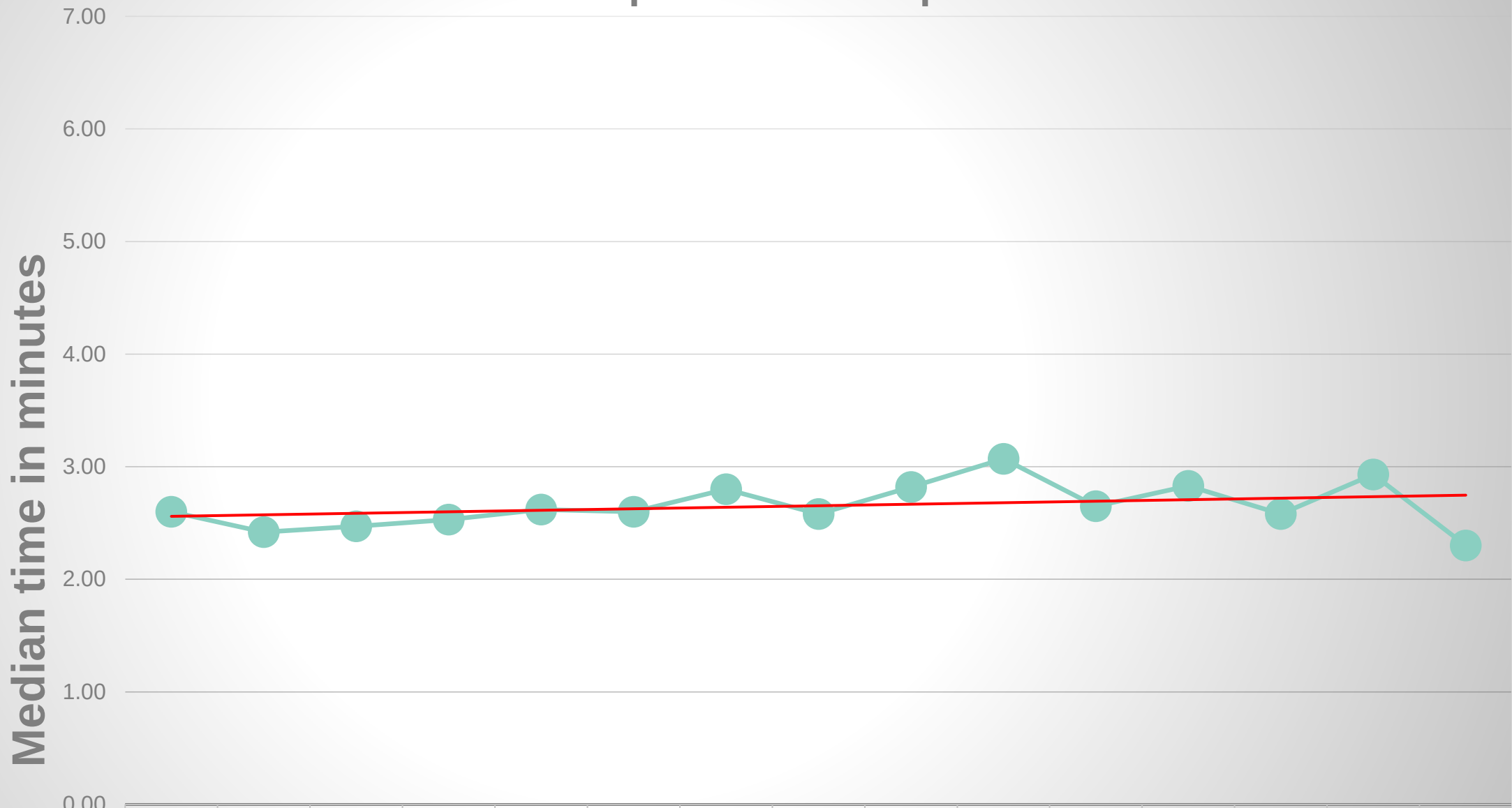
CARES Dispatcher Assisted-CPR Report

End of the Event: Dead in Field, Pronounced Dead in ED, Ongoing Resuscitation in ED | Resuscitation Attempted by 911 Responder: Yes | Presumed Cardiac Etiology, Respiratory/Asphyxia, Drowning/Submersion, Electrocution, Other, Drug Overdose, Exsanguination/Hemorrhage | Date of Arrest: From 07/01/2024 Through 09/30/2024

Characteristic	Wake County EMS System
Bystander CPR (Module-based)	**N=108**
Bystander CPR with dispatcher assistance	47 (43.5%)
Bystander CPR without dispatcher assistance	22 (20.4%)
Dispatcher CPR Instructions	
Dispatcher recognized need for CPR	81 (96.4%)
CPR instructions started	74 (98.7%)
CPR instructions refused	5 (10.9%)
Compressions started	48 (71.6%)
Time Intervals	
Call receipt to CPR recognition	84
Mean	01:22
Median	00:47
Call receipt to CPR instruction	80
Mean	01:52
Median	01:20
Call receipt to first compression	50
Mean	02:56
Median	02:18

Barriers to CPR	N=46
Hang up phone	2 (4.3%)
Language barrier	1 (2.2%)
Difficult patient access	8 (17.4%)
Caller left phone	5 (10.9%)
Overly distraught	6 (13.0%)
Caller refused	5 (10.9%)
Couldn't move patient	15 (32.6%)
Caller not with patient	5 (10.9%)
Patient's status changed	6 (13.0%)
Other	6 (13.0%)
Not Applicable	0 (0.0%)

DA-CPR
911 Call Receipt to First Compression



	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24
Time from 911 call to first compression	2.60	2.42	2.47	2.53	2.62	2.60	2.80	2.58	2.82	3.07	2.65	2.83	2.58	2.93	2.3

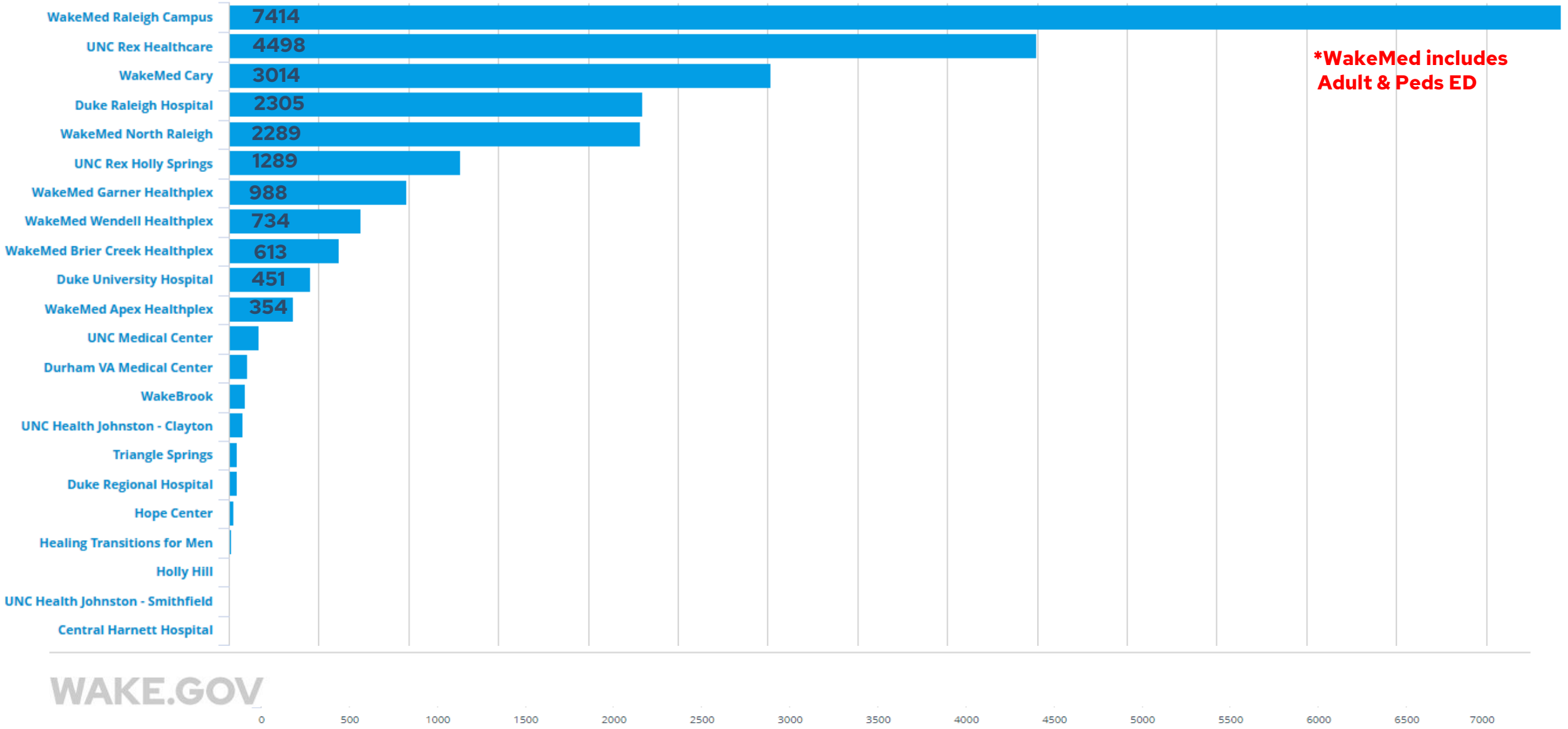
Miscellaneous Clinical Reports

Transports By Facility

Jul 1, 2024 - Sep 30, 2024

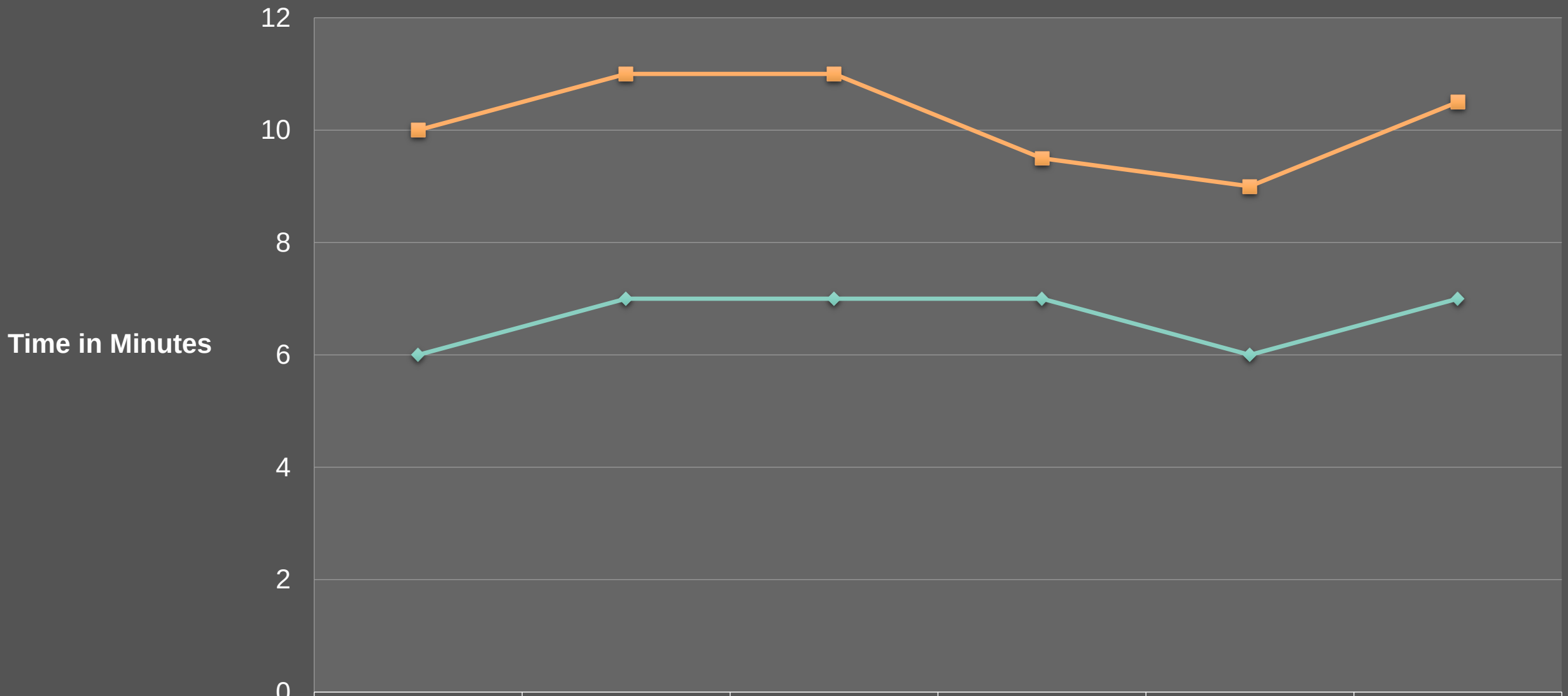
24,552
RECORDS
In Selected Time Slice

+ 1063
From 2Q24



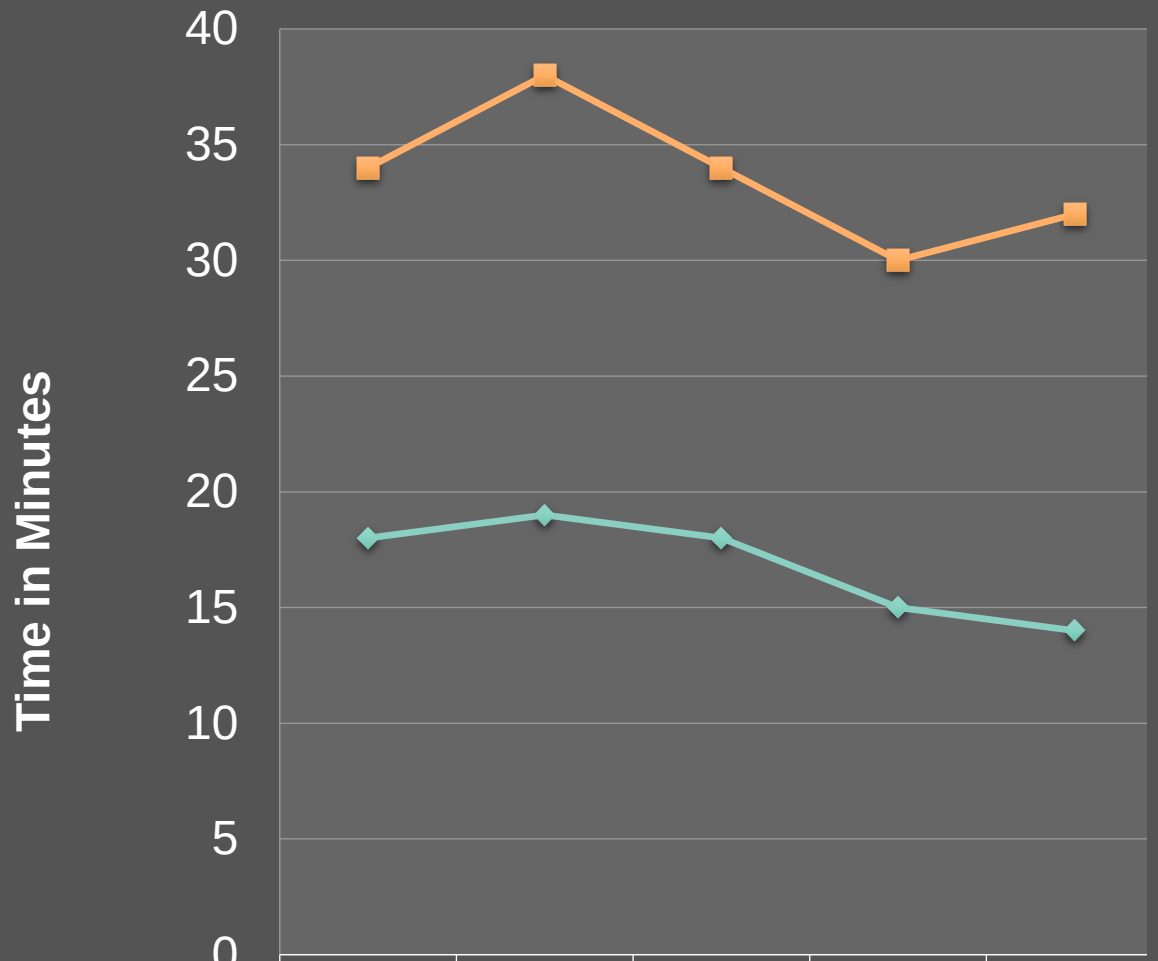
WAKE.GOV

Wake EMS System
Penetrating Trauma Scene Times



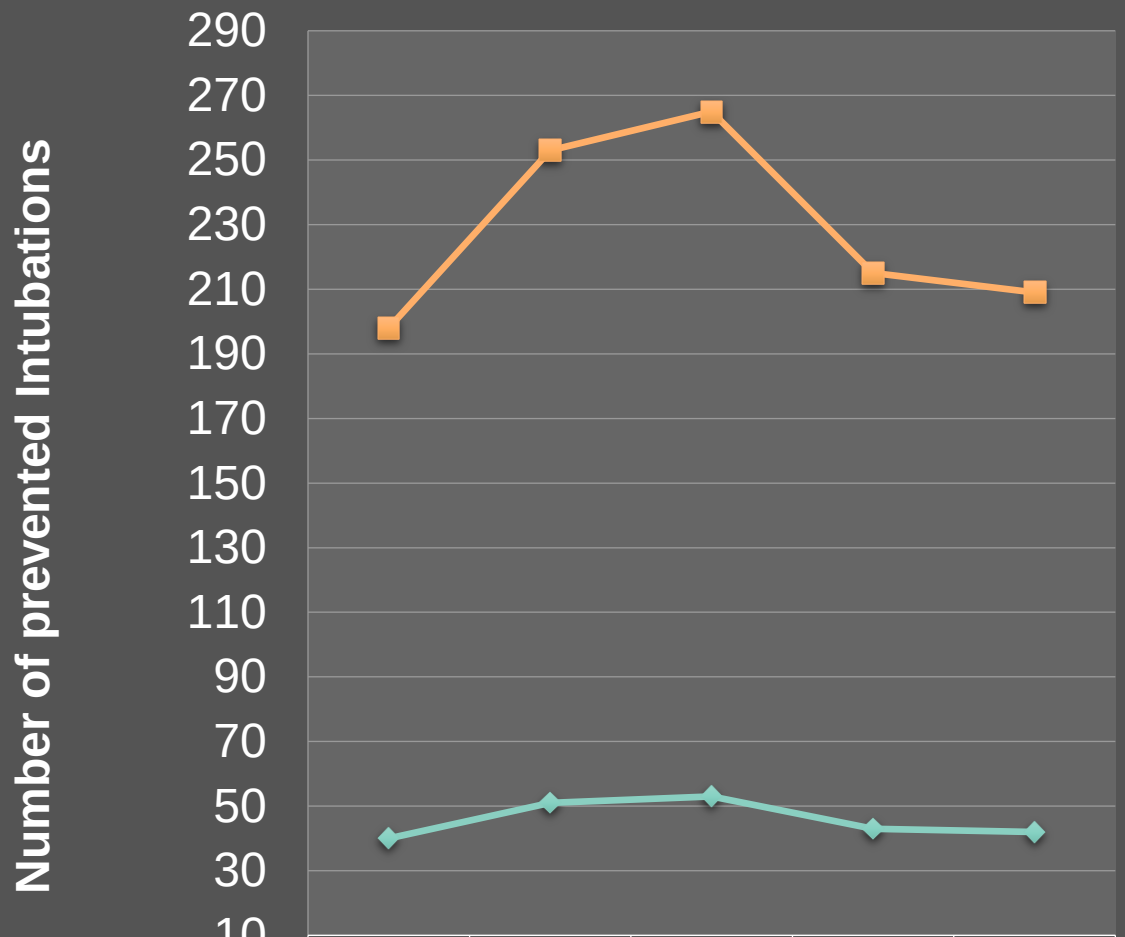
	2Q23 n=46	3Q23 n=69	4Q23 n=60	1Q24 n=37	2Q24 n=46	3Q24 n=69
Mean	6	7	7	7	6	7
90th Percentile	10	11	11	9.5	9	10.5

Wake EMS System
CPAP Application Time



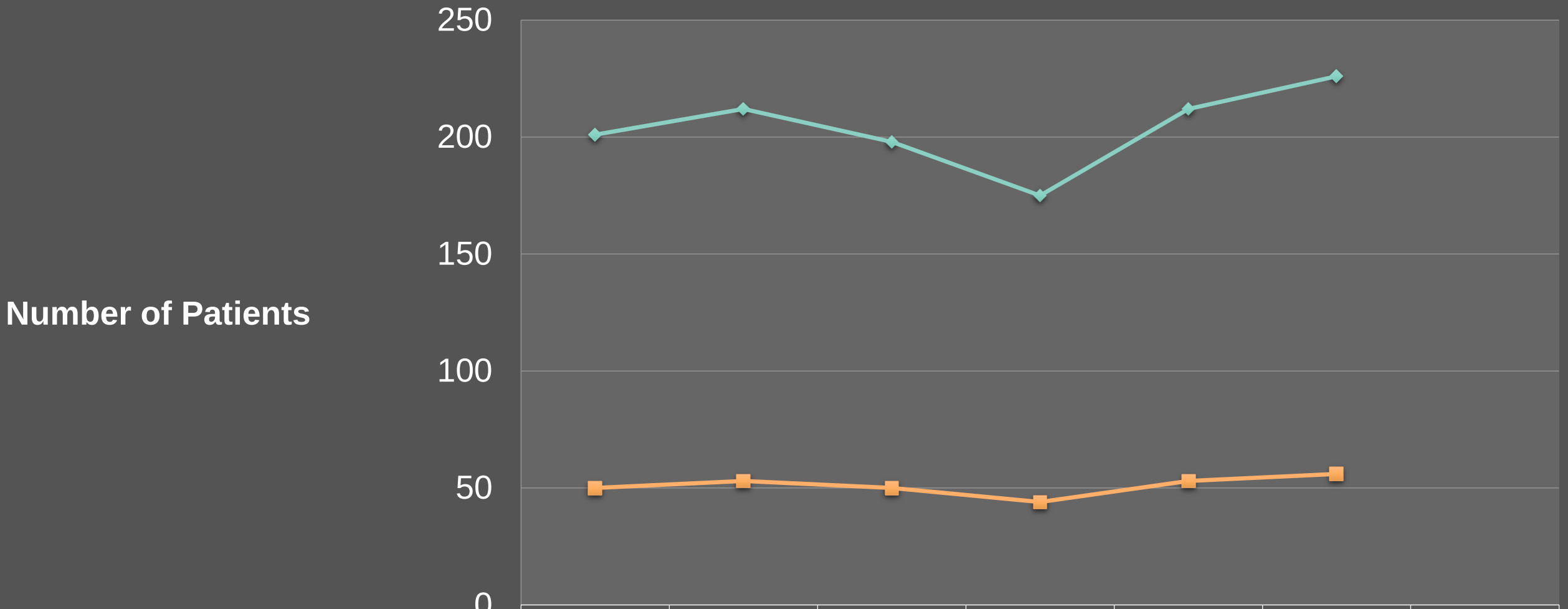
	3Q23	4Q23	1Q24	2Q24	3Q24
Mean	18	19	18	15	14
90th Percentile	34	38	34	30	32

Wake EMS System
Intubation Prevented with CPAP



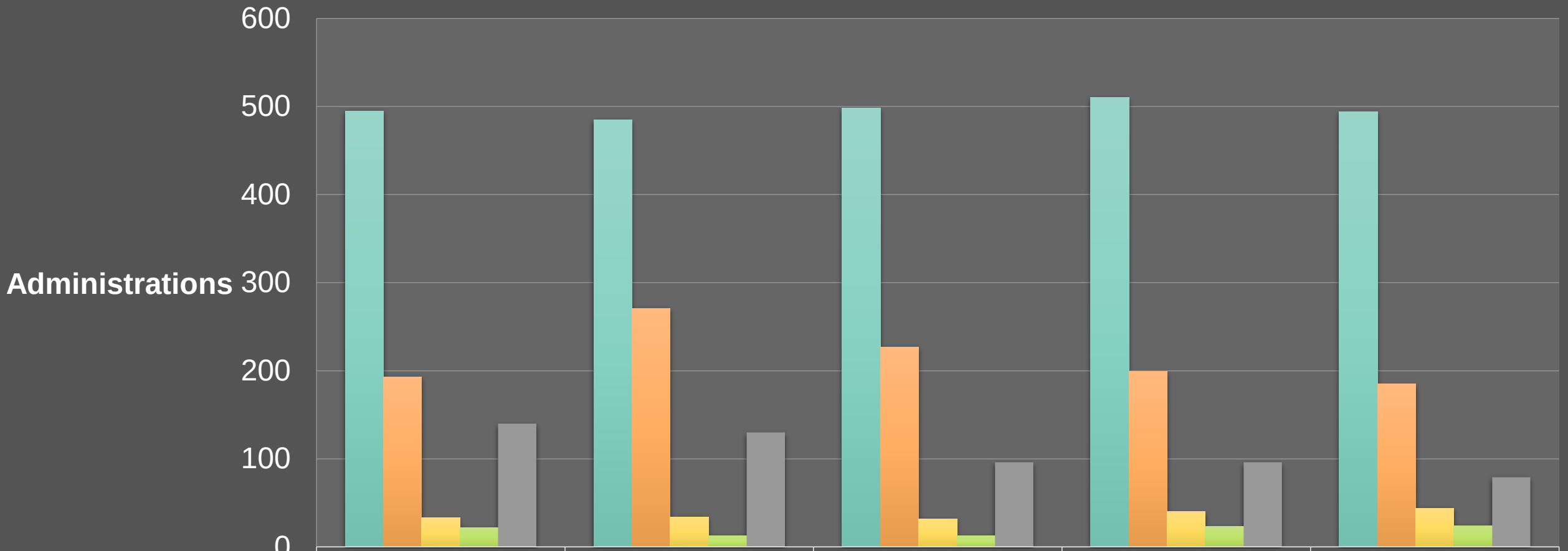
	3Q23	4Q23	1Q24	2Q24	3Q24
Intubation Prevented	40	51	53	43	42
Treated with CPAP	198	253	265	215	209

Wake EMS System
Seizure Patients Treated with Midazolam



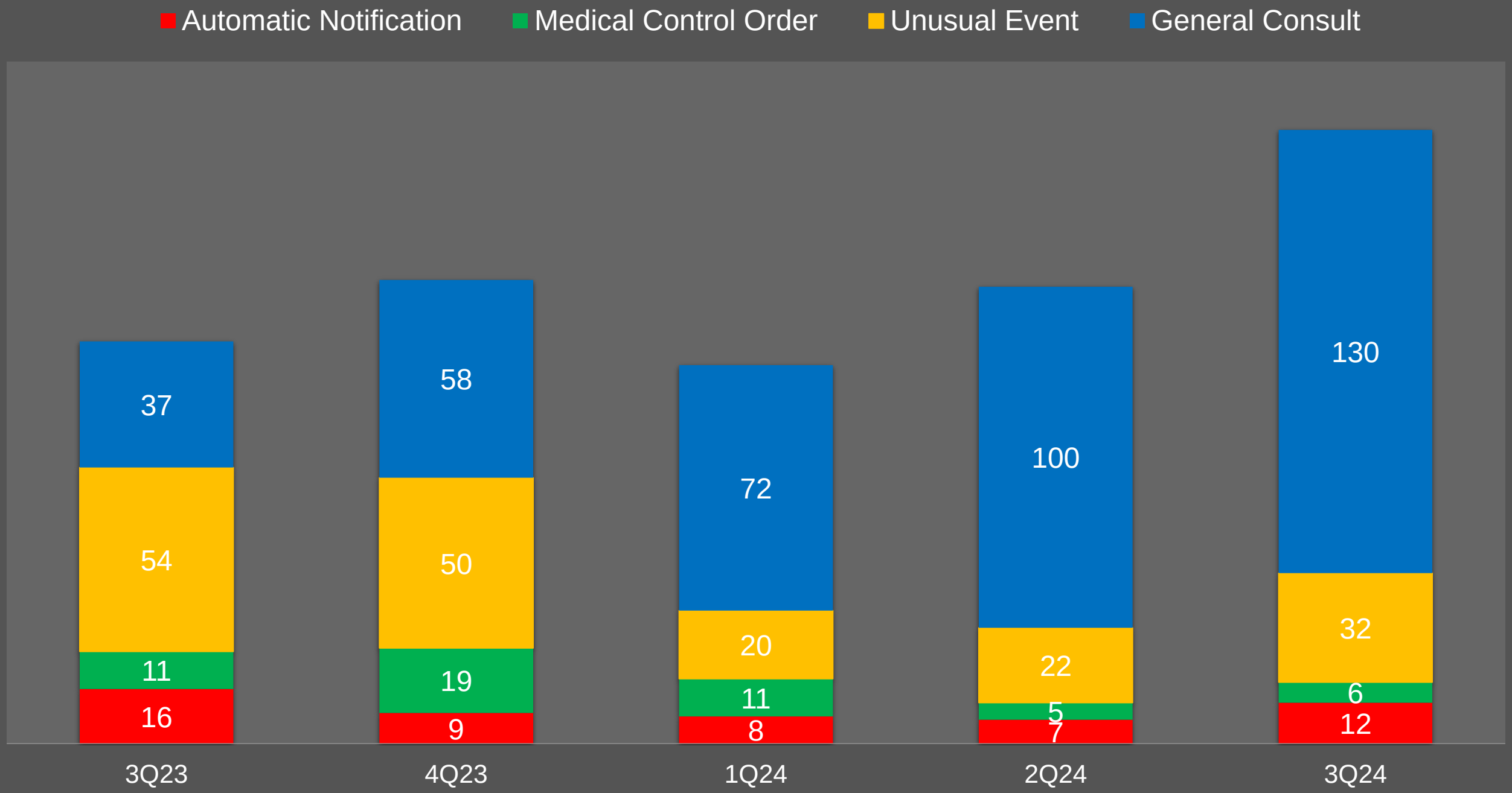
	2Q23	3Q23	4Q23	1Q24	2Q24	3q24	
Total Treated with Midazolam	201	212	198	175	212	226	
Total Prevented from Recurrent Seizure	50	53	50	44	53	56	

Medications Administered by First Responders – Derived from EMS Documentation

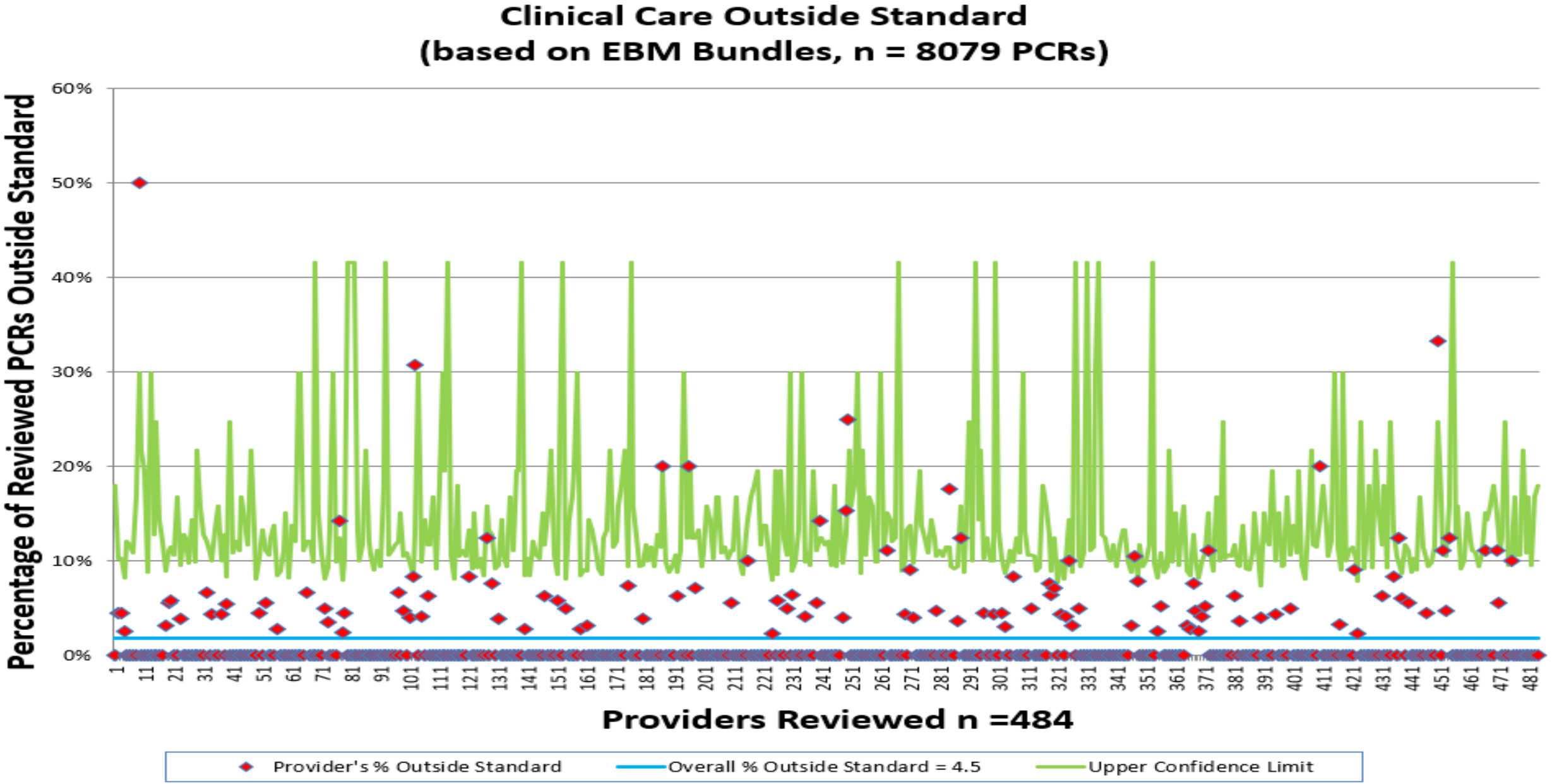


	3Q23	4Q23	1Q24	2Q24	3Q24
Aspirin	495	485	498	510	494
Albuterol	193	271	227	199	185
Oral Glucose	33	34	32	40	44
Epinephrine	22	13	13	23	24
Naloxone	140	130	96	96	79

Reason for OMD Contact



QA ePCR Chart Review

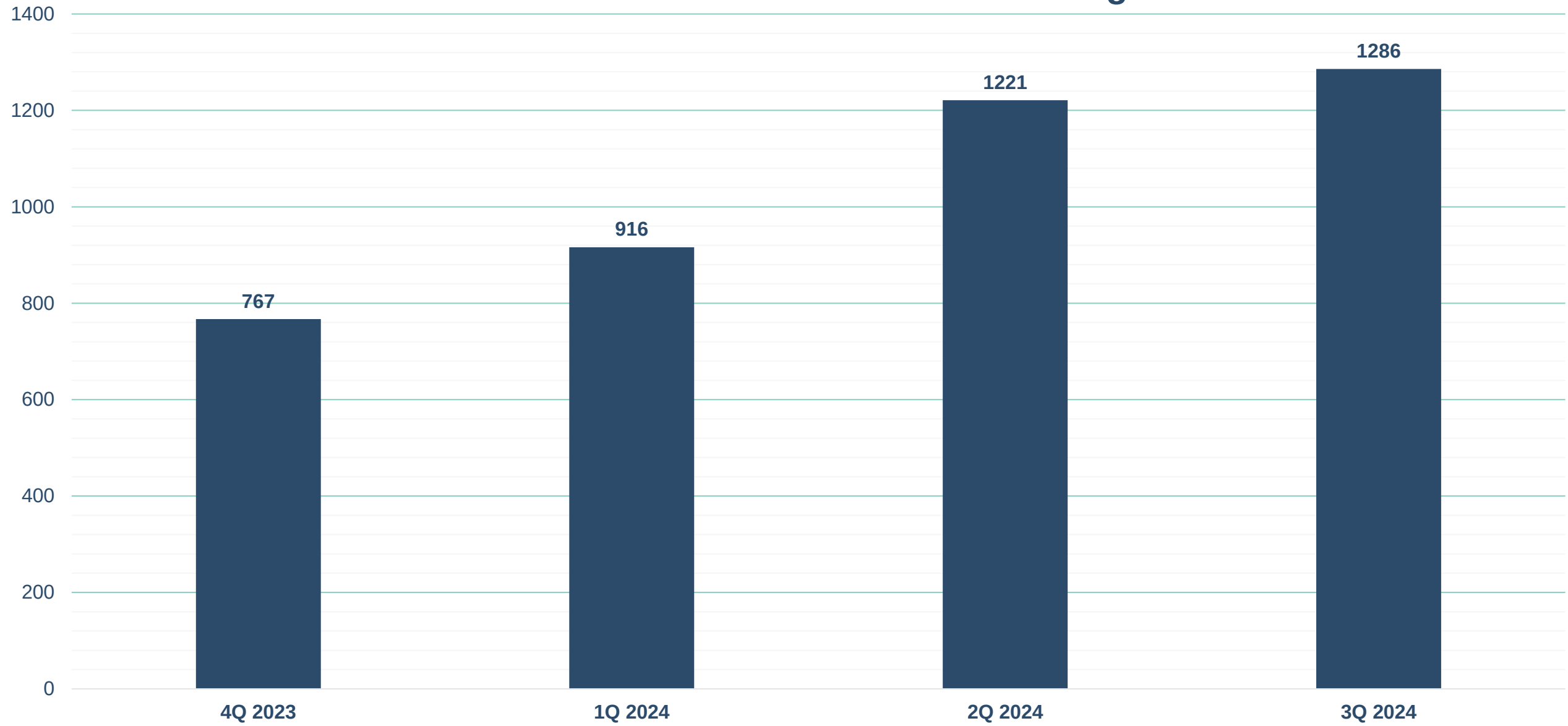


Mental Health / Substance Use Alternate Destination

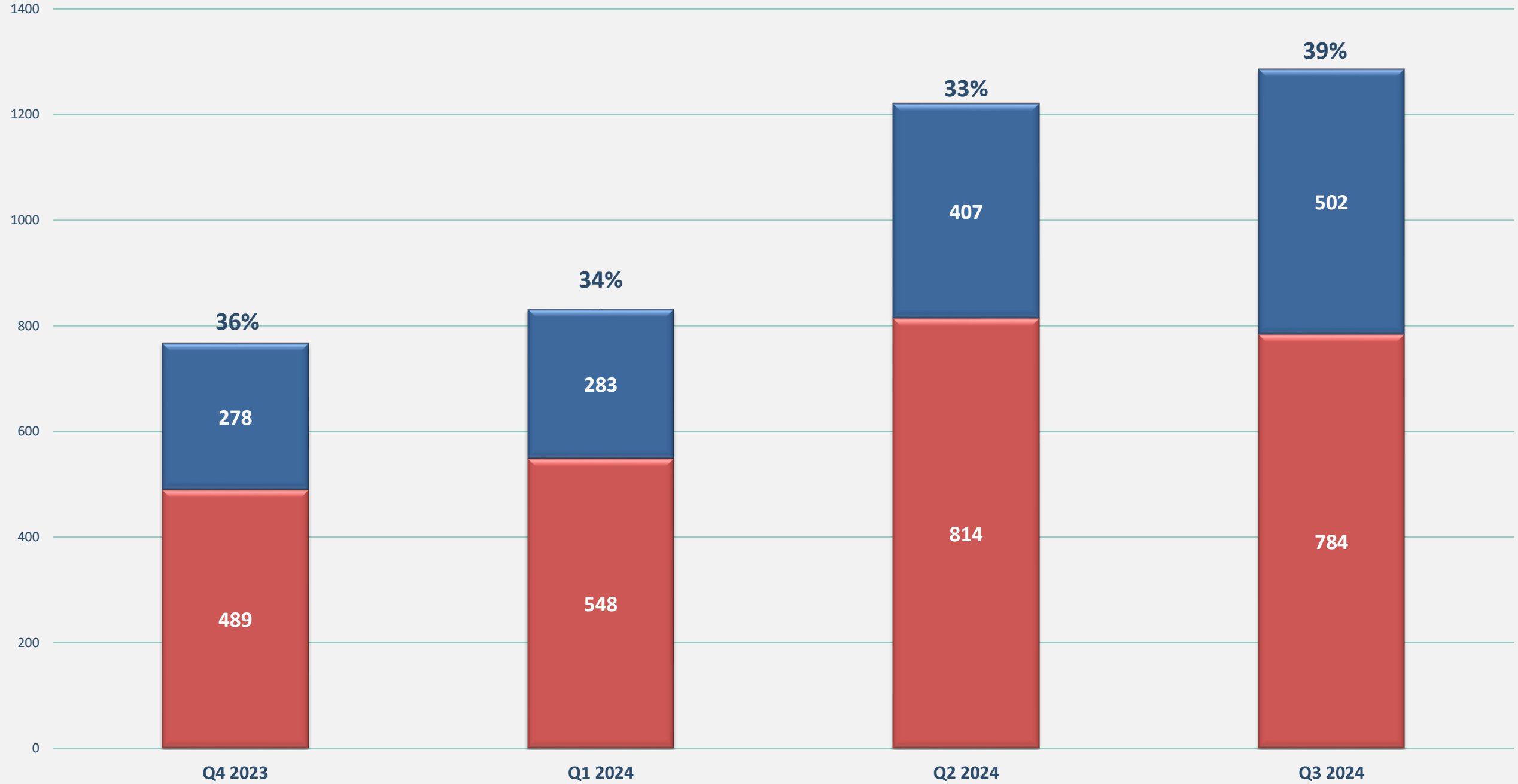
Michael Lyons
Commander – Mobile Integrated Health

WAKE COUNTY
NORTH CAROLINA

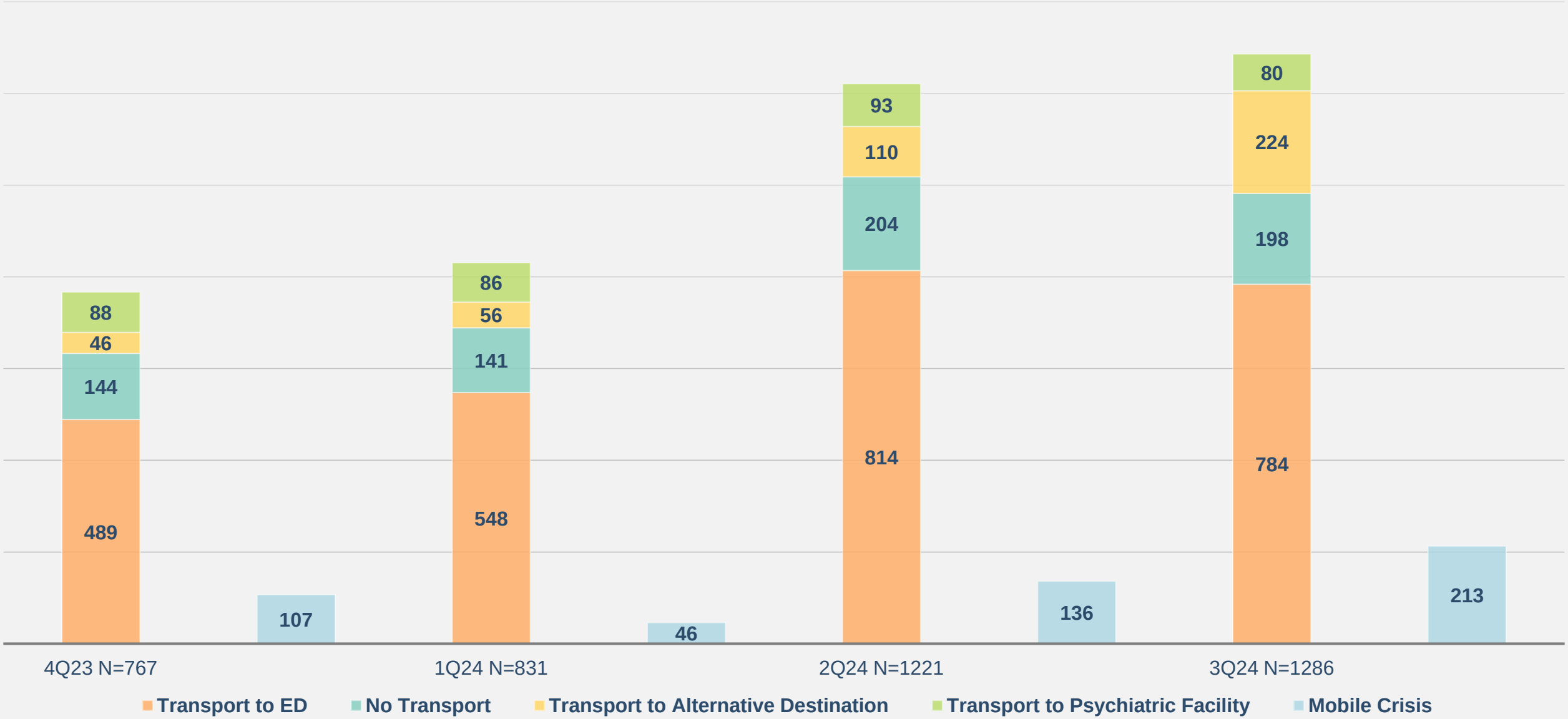
Mental Health/Substance Use Screenings



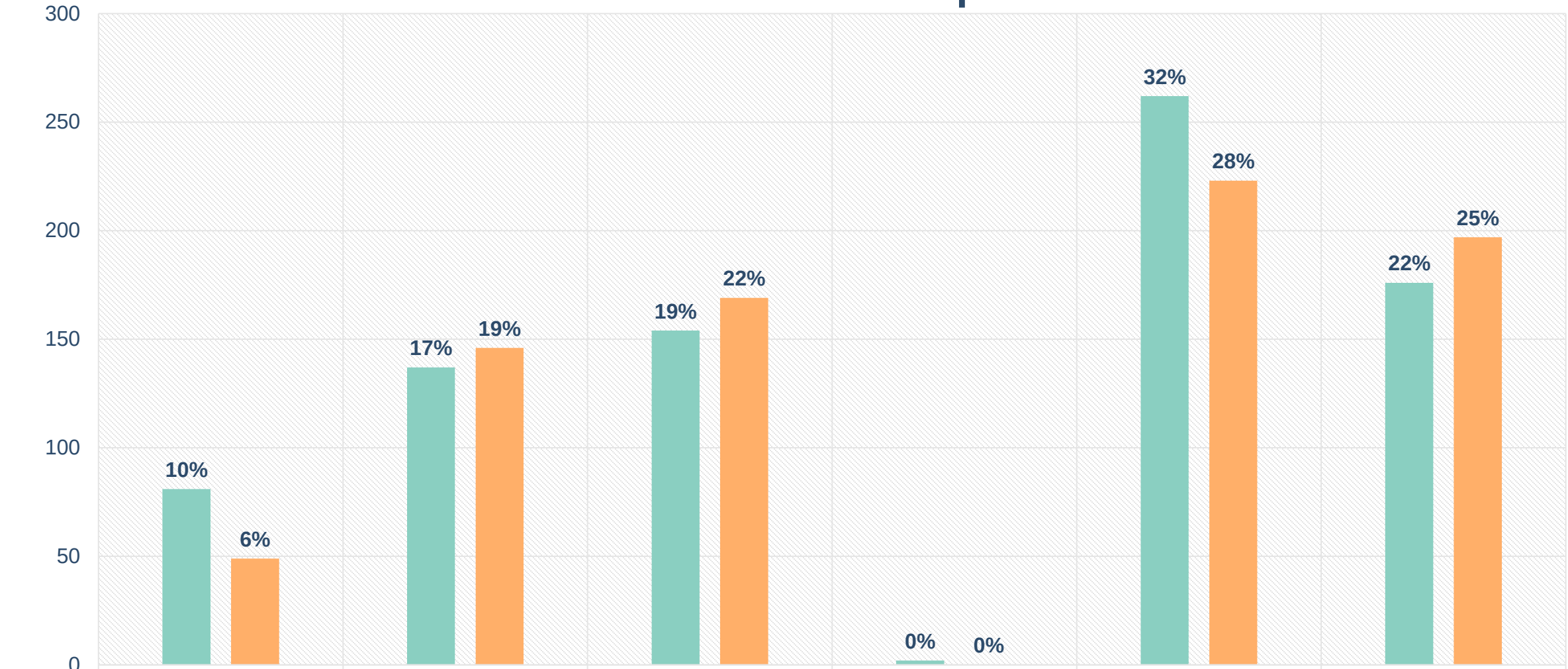
ED vs Non-ED Disposition



APP Alternate Destination Screening

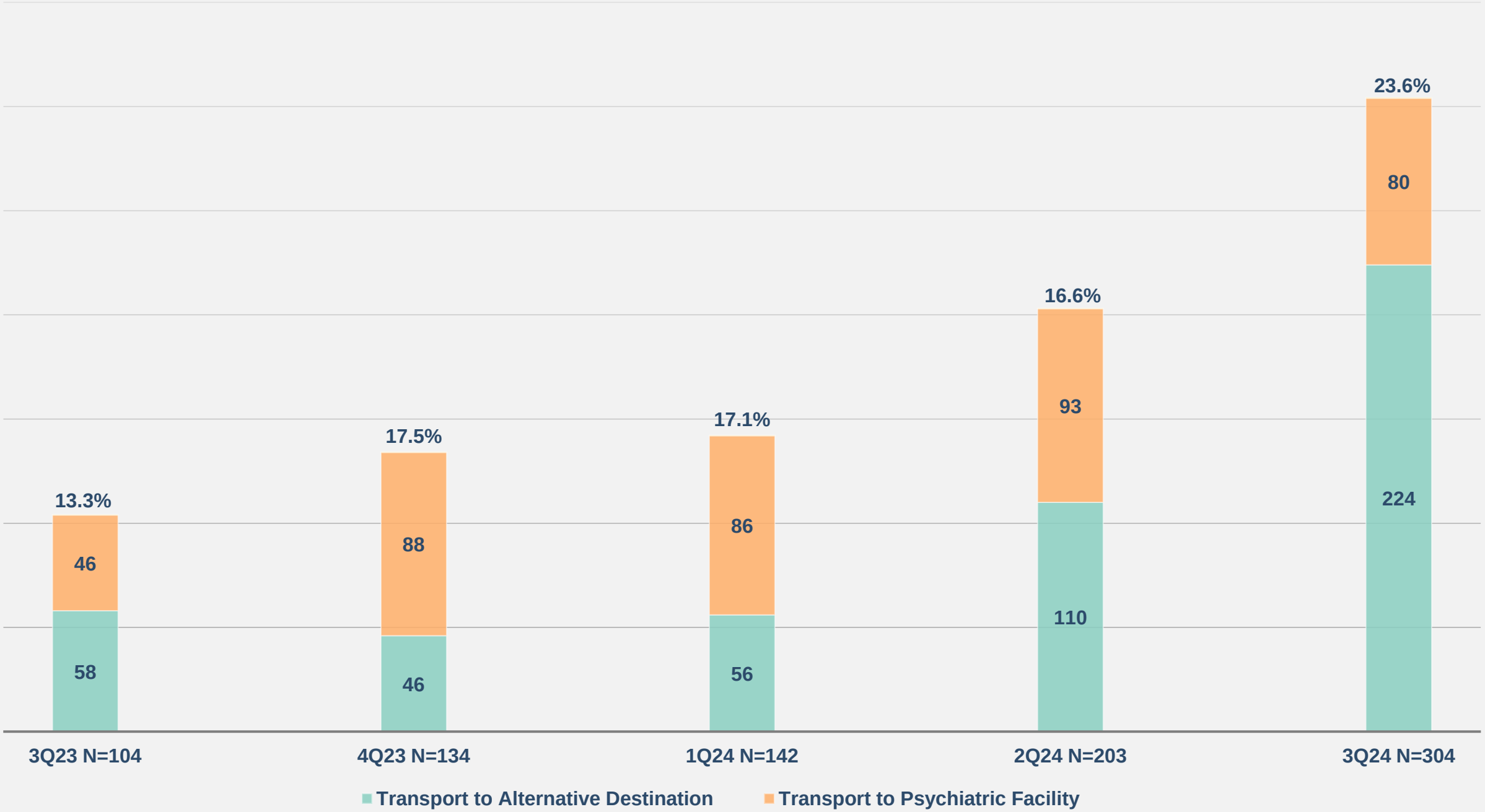


Mental Health/Substance Use Screening
Reason for ED Transport

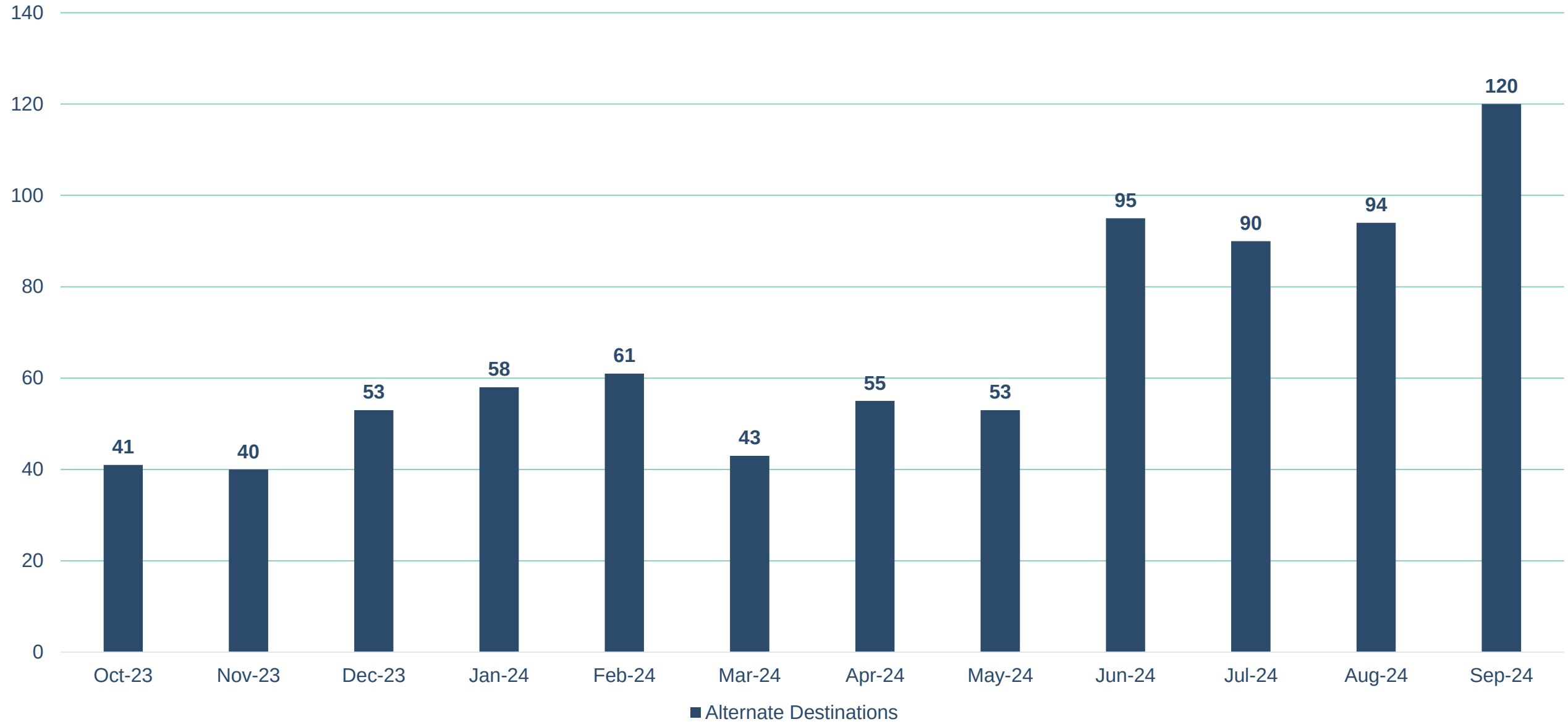


	Center Capacity	Medical Clearance	Medical Emergency	Not Defined	Patient Chose ED	Psychiatric Acuity
Q2 2024	81	137	154	2	262	176
Q3 2024	49	146	169	0	223	197

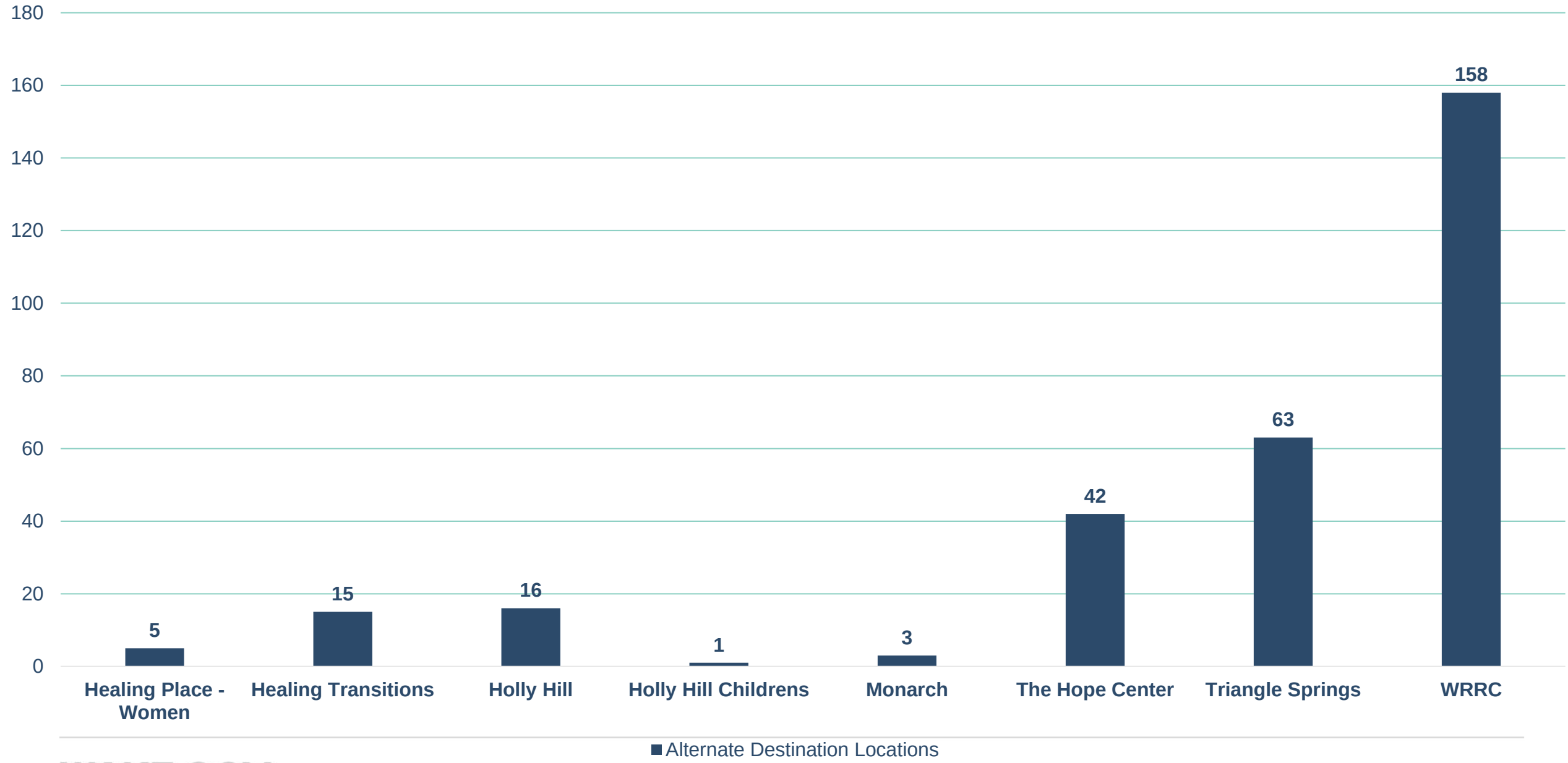
Successful APP Alternate Destination %



Alternate Destinations



Alternate Destination Locations



Buprenorphine Update

Buprenorphine screenings since 7/5/2023:

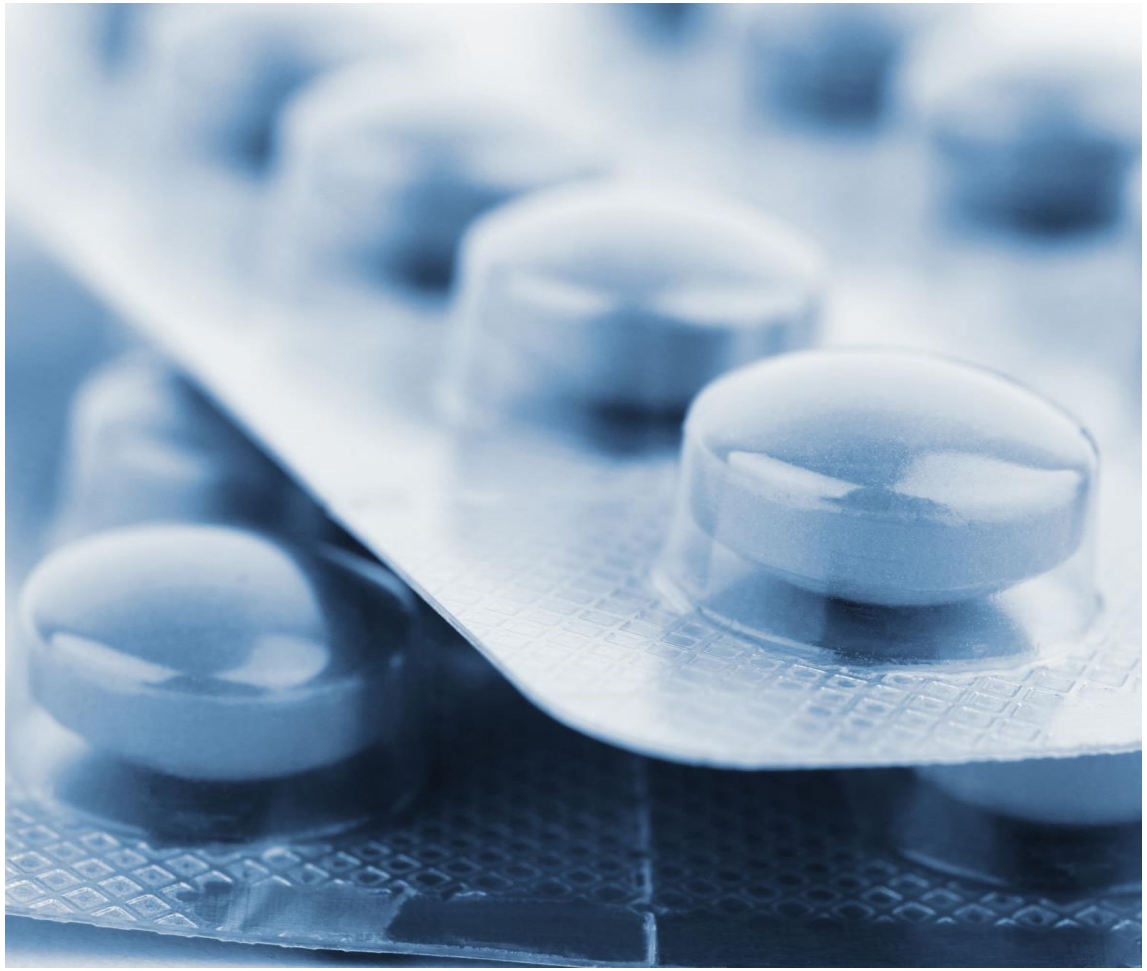
534

Total patients who received buprenorphine:

99

Total patients who followed up with SouthLight:

31



WAKE COUNTY
NORTH CAROLINA

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