



# **EMERGENCY MEDICAL SERVICES (EMS) SYSTEM ASSESSMENT UPDATE**

**Prepared for Mecklenburg  
Board of County Commissioners**

**April 21, 2026**



**HEALTHCARE  
STRATEGISTS**

# ***HEALTHCARE STRATEGISTS***

- **National EMS consulting firm, 30 years of experience**
- **Hundreds of completed EMS assessments at the local, county, regional, and state level**
- **Consulting team with 20 to 50 years of industry experience**
- **Subject matter experts in operations, clinical, communications, system status management, and fiscal needs**

# EXECUTIVE SUMMARY



**ASSESSMENT WITH  
70+ STAKEHOLDERS  
AND FIELD  
OBSERVATIONS**



**TOP-TIER EMS SYSTEM  
WITH HIGHLY  
TRAINED, MISSION-  
DRIVEN EMS  
PROFESSIONALS**



**OPERATIONAL  
CHALLENGES TO  
MEET RESPONSE TIME  
RAW COMPLIANCE**



**BALANCED CHANGE  
REQUIRED TO MEET  
STAKEHOLDER  
EXPECTATIONS**

# SYSTEM HIGHLIGHTS



**TOP 5 CARDIAC  
ARREST SURVIVAL  
RATES, CLINICAL  
OVERSIGHT, &  
RESEARCH**



**TIERED RESPONSE  
USING ADVANCED &  
BASIC LIFE SUPPORT  
(ALS/BLS) AMBULANCE  
WITH EMERGENCY  
MEDICAL DISPATCH  
(EMD) PROTOCOLS**



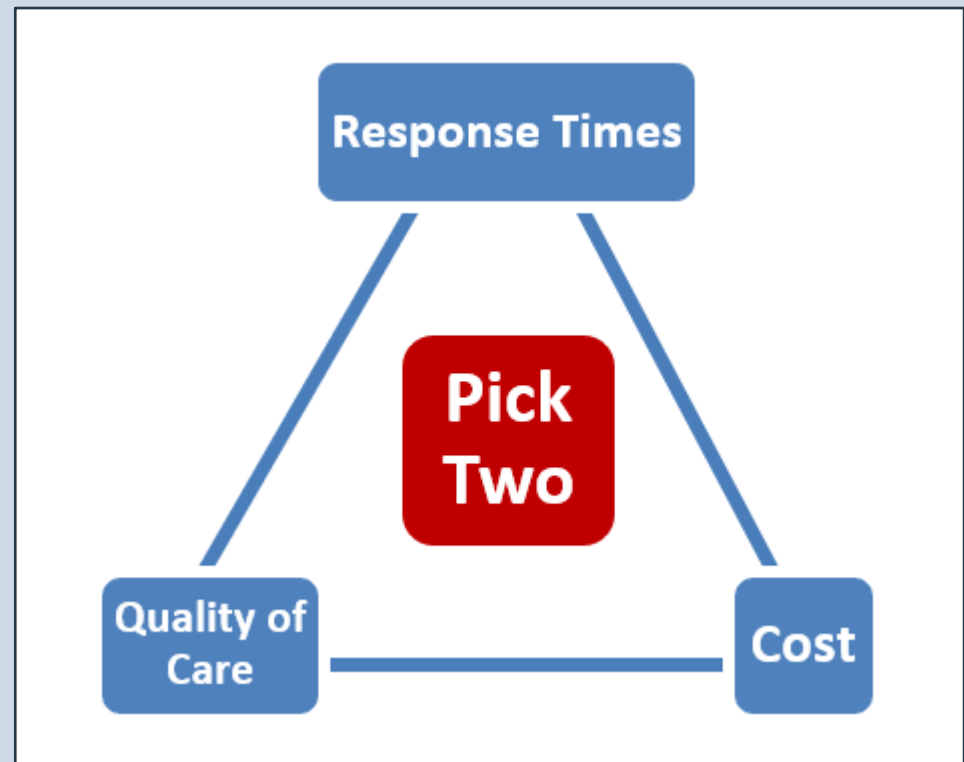
**SIGNIFICANT COUNTY  
FINANCIAL SUPPORT  
BEYOND PATIENT  
REVENUE**



**ACCREDITED  
DISPATCH AND  
AMBULANCE SERVICES**

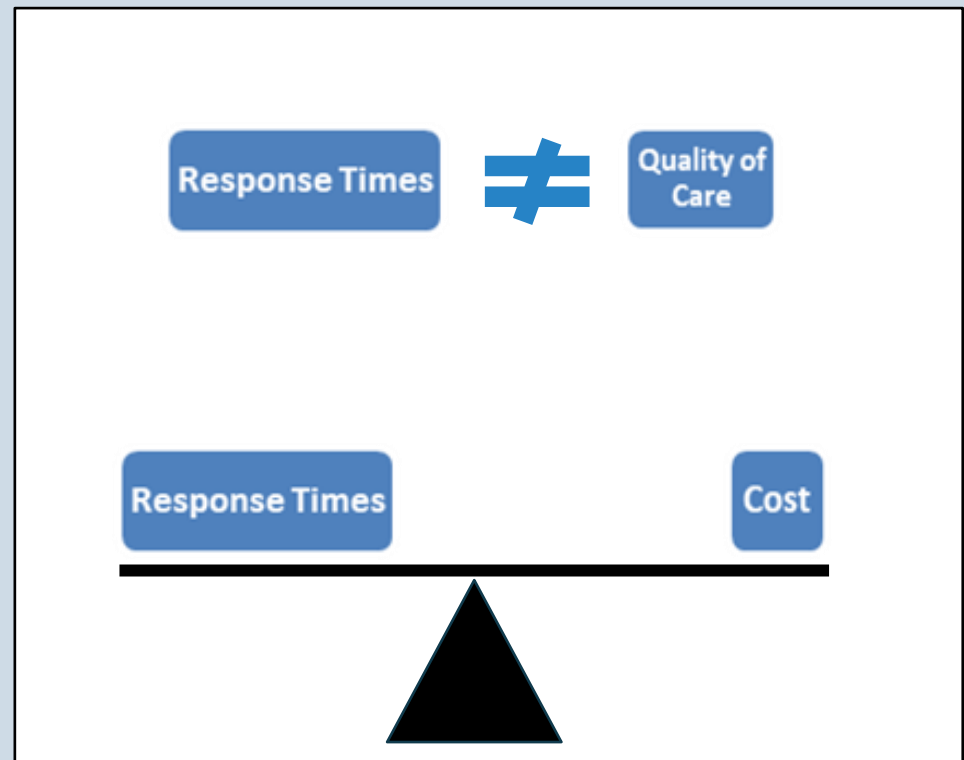
# THE EMS DECISION TRIANGLE

- **High clinical performance**
- **Raw compliance averaging 81% vs. 90% goal**
- **Ambulance resources insufficient for current contract standards**
- **High unit hour utilization (UHU) indicates over-utilization and workforce strain**



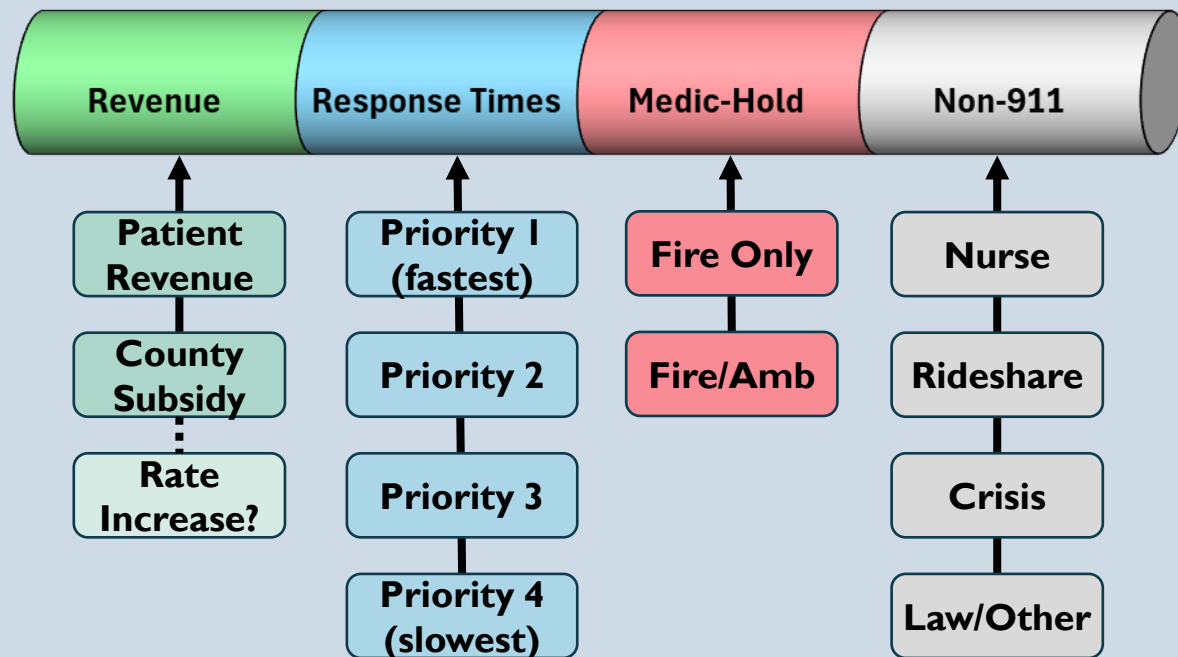
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# MECKLENBURG EMS SYSTEM

## Variables within the Current System



# **EMS SYSTEM REVIEW**

- **Adjust response time goals or increase revenue as the system is performing above national averages to meet realistic expectations**
- **Consider adopting call/population density-based response time standards**
- **Prioritize response times for high-acuity calls; expand non-911 options (e.g., nurse triage, rideshare, crisis team, law, community paramedicine)**
- **Add city/town representation to the EMS Agency Board of Commissioners (ABOC) or other pre-hospital committee**

# **FIRST RESPONDER ROLE**

- **Continue collaborative, data-driven process to assign call types (e.g., ALS need, clinical interventions, transport likelihood)**
- **Allow municipalities to expand EMS response beyond required call types, as they desire**
- **Compensate first responders handling Medic-Hold calls using a cost avoidance formula that avoids federal kick-back concerns**
- **Educate first responders on the legality of assess-and-release pending ambulance arrival**

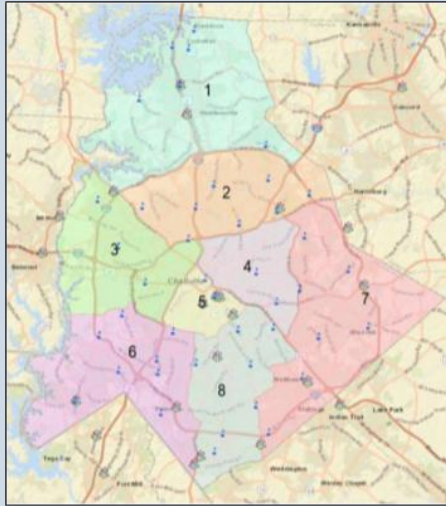
# **EMS GOALS AND PERFORMANCE STANDARDS**

- **Monitor efficiency (i.e., unit hour utilization) and clinical key performance indicators rather than strict response-time compliance**
- **Separate dispatch processing times from unit response times and establish dispatch processing goals**
- **Adjust response time standards (or move away from contracted standards) to reflect acuity, call density, and realistic funding**
- **Implement an online compliance utility (OCU) software for objective, transparent performance reporting**

# RESPONSE ZONES

Current 3-Zone Compliance			
Zone	Responses		Compliance
North	19,263	26.3%	83.5%
Central	23,912	32.6%	84.8%
South	30,081	41.1%	83.3%
<b>Total</b>	<b>73,256</b>	<b>100.0%</b>	<b>83.8%</b>

Source: Jan-Jun 2025 CAD data, cancelled calls omitted



Proposed 8-Zone Compliance					
Zone	Responses		Square Miles	Responses/ square mile	Compliance
1-NN	5,437	7.4%	102	53	79.3%
2-N	9,165	12.5%	65	141	85.5%
3-W	12,724	17.4%	64	199	84.6%
4-CE	12,753	17.4%	36	354	86.0%
5-C	8,824	12.1%	17	519	88.2%
6-SW	9,129	12.5%	82	111	82.4%
7-E	7,948	10.9%	102	78	78.7%
8-S	7,233	9.9%	58	125	82.1%
<b>Total</b>	<b>73,213</b>	<b>100.0%</b>	<b>526</b>	<b>139</b>	<b>83.8%</b>

Source: Jan-Jun 2025 CAD data, cancelled calls omitted

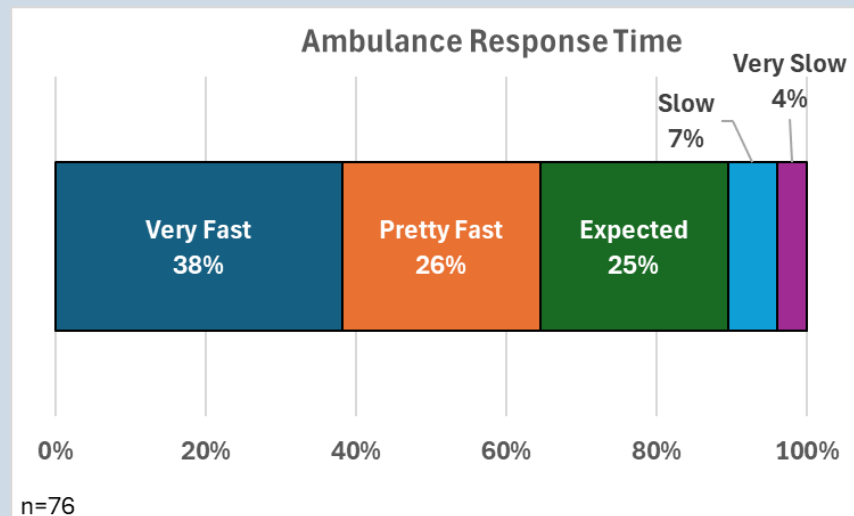
- Move to 6-10 response zones based on call volume, with minor geographic adjustments
- Consider satellite deployment center(s) to reduce unproductive travel time and improve compliance
- Eliminate exemptions and measure compliance using actual performance experienced by patients

# EMS SYSTEM FUNDING

- **Direct operational costs appear reasonable and in line with similar systems**
- **Payor mix has improved, with higher commercial and Medicaid proportions and reduced charity/private pay**
- **ALS rates are slightly above state averages, indicating room for revenue growth through rate adjustments**
- **Consider increasing ambulance charges, e.g., 21% increase (i.e., 3x Medicare allowable rates)**
- **Monitor 2026-2027 revenue risks tied to limited consumer price index (CPI) increases, Affordable Care Act (ACA) phase-out impacts, and call volume decrease**

# COMMUNITY SURVEY

- 911 Caller Response Time Experience



# RECOMMENDATIONS



**CONTINUE  
STRONG  
CLINICAL  
FOCUS**



**ADJUST  
RESPONSE  
TIMES  
AND/OR  
INCREASE  
REVENUE**



**REIMBURSE  
FIRST  
RESPONDERS  
FOR THE COST  
AVOIDANCE  
SAVINGS**



**CUSTOMIZE  
DISPATCH TO  
MEET EACH  
AGENCY'S  
NEEDS**



**ELIMINATE  
EXEMPTIONS  
FROM THE EMS  
SYSTEM**

# CLOSING SUMMARY

- **World class EMS system with many best practices**
- **Staffed by highly trained individuals providing a collective continuum of care with strong clinical quality and caller support**
- **Response time contract standards are unrealistic without new funding or updating expectations using an evidence-based process**
- **Ongoing county support has “absolutely saved lives,” contributing to exceptional cardiac arrest survival rates**
- ***“The safety of the people shall be the highest law”***  
~ 2025 Commissioner Meeting

# MECKLENBURG EMS SYSTEM NEXT STEPS

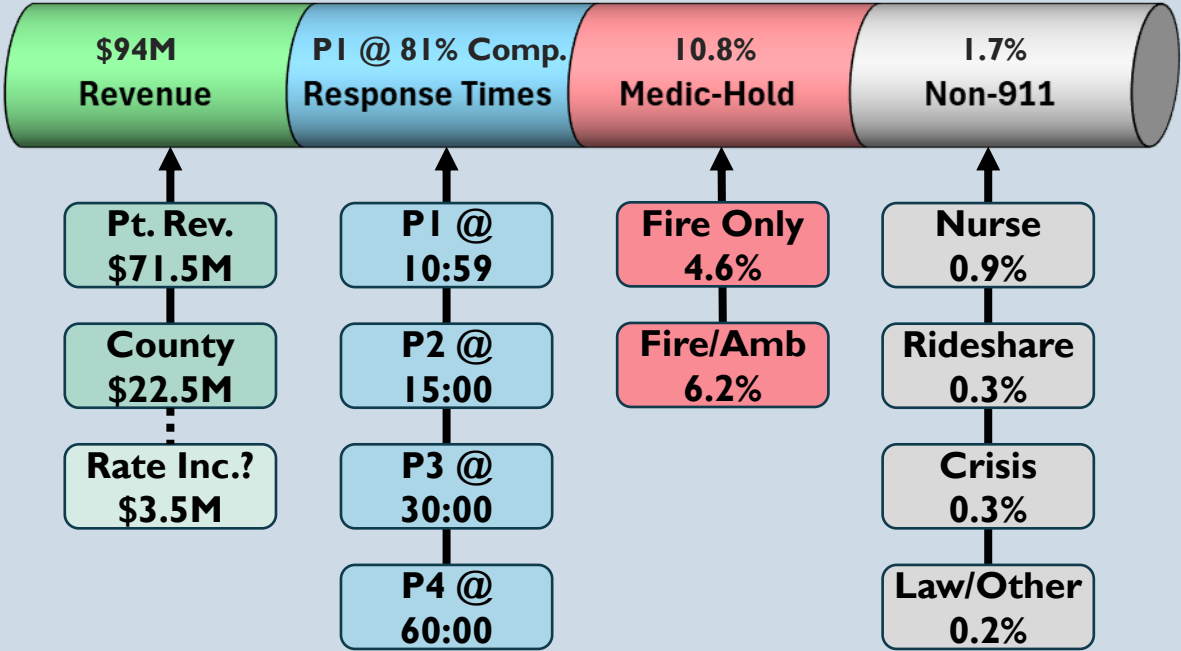
## Variables within the Current System



# MECKLENBURG EMS SYSTEM NEXT STEPS

## Variables within the Current System

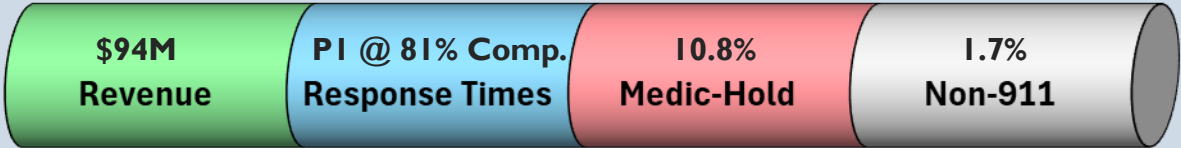
Current:



# MECKLENBURG EMS SYSTEM NEXT STEPS

## Options to Consider

**Current:**



First Responder Options	Revenue	Medic-Hold
First Responder Subsidy	No Change	\$1.28M
County Subsidy	\$1.28M	Eliminate

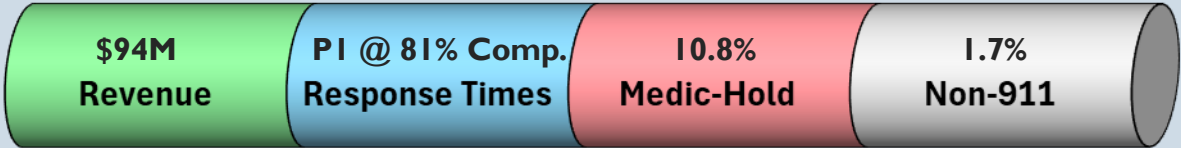
*Notes: County is currently subsidizing \$0.9M; the \$1.28M does not include possible capital equipment needs for Medic*

- **Common Practice:** Send everything to everyone
- **Best Practice:** Send only what is likely needed
- Fire truck will get there quicker, can assess sooner, and request an ambulance only when needed

# MECKLENBURG EMS SYSTEM NEXT STEPS

## Options to Consider

**Current:**



Priority I (PI) Response Time Compliance Options	County Subsidy/ Rate Increase	Response Time Goals
<b>Option 1: Change Response Times</b>	No Change	+60 seconds to PI
<b>Option 2: Change 50% County/50% Response Times</b>	\$3M	+30 seconds to PI
<b>Option 3: Change County Subsidy/Rate Increase</b>	\$6M	No Change

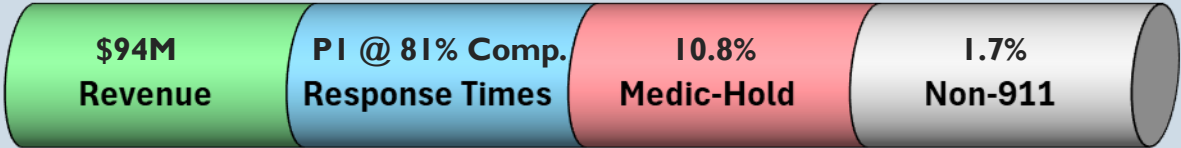
*Notes: These are high call density changes; medium, low, and minimal call density would increase proportionally  
Options 2 & 3 are based on 2025 expenses; they do not consider 2026 expenses, anticipated loss of 2026 revenue, or include possible capital equipment needs for Medic*

- **Faster response times are not clinically justified**
- **The system is performing well clinically with the actual response times (i.e., +60 seconds)**
- **Some increase of subsidy and/or base rates will likely be needed independent of system changes**

# MECKLENBURG EMS SYSTEM NEXT STEPS

## Options to Consider

**Current:**



Priority 2-4 (P2-4) Response Time Compliance Options	County Subsidy/ Rate Increase	Response Time Goals
<b>Option 1: Change Response Times</b>	No Change	+5 minutes to P2 +5 minutes to P3 Best Effort to P4
<b>Option 2: 100% County Subsidy</b>	\$8.5M	No Change

*Notes: These are high call density changes; medium, low, and minimal call density would increase proportionally  
Option 2 is based on 2025 expenses; it does not consider 2026 expenses, anticipated loss of 2026 revenue, or include possible capital equipment needs for Medic*

- **Faster response times are not clinically justified**
- **Priority 2-4 calls have been triaged by the dispatch center as not being a medical emergency**
- **First responders can clear (or remain on scene and available for the next call) after assessment and determine that the 911 call is non-emergent**

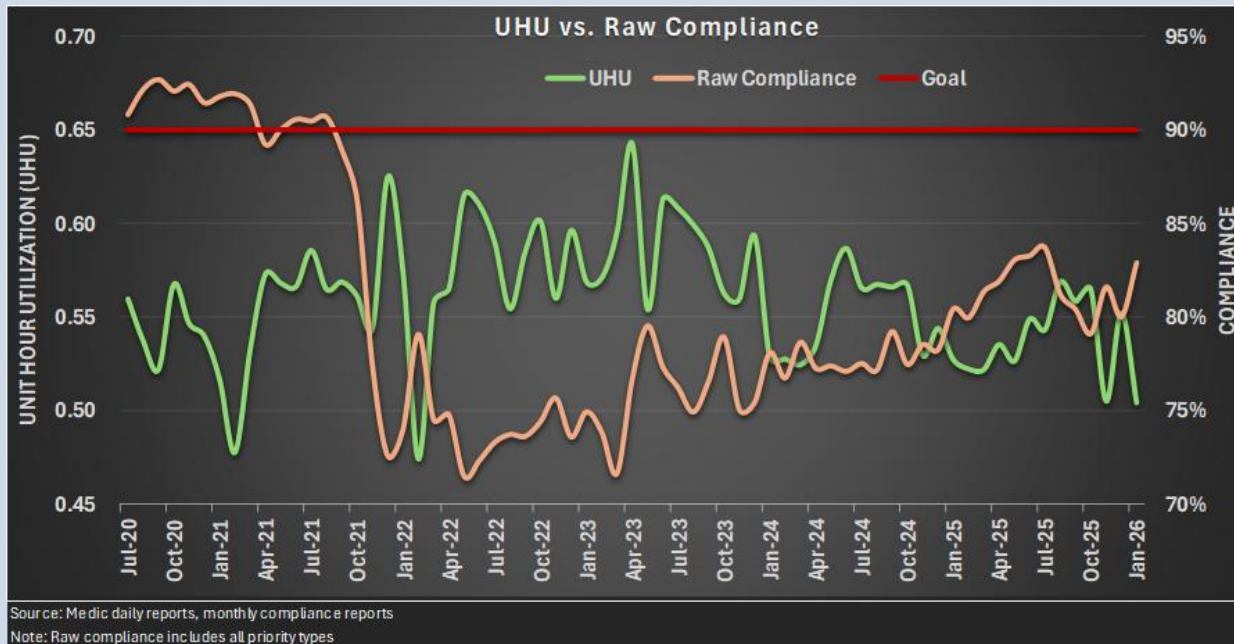


# **EMS SYSTEM ASSESSMENT *UPDATE***

**Questions?**

**APPENDIX:  
CHARTS & TABLES**

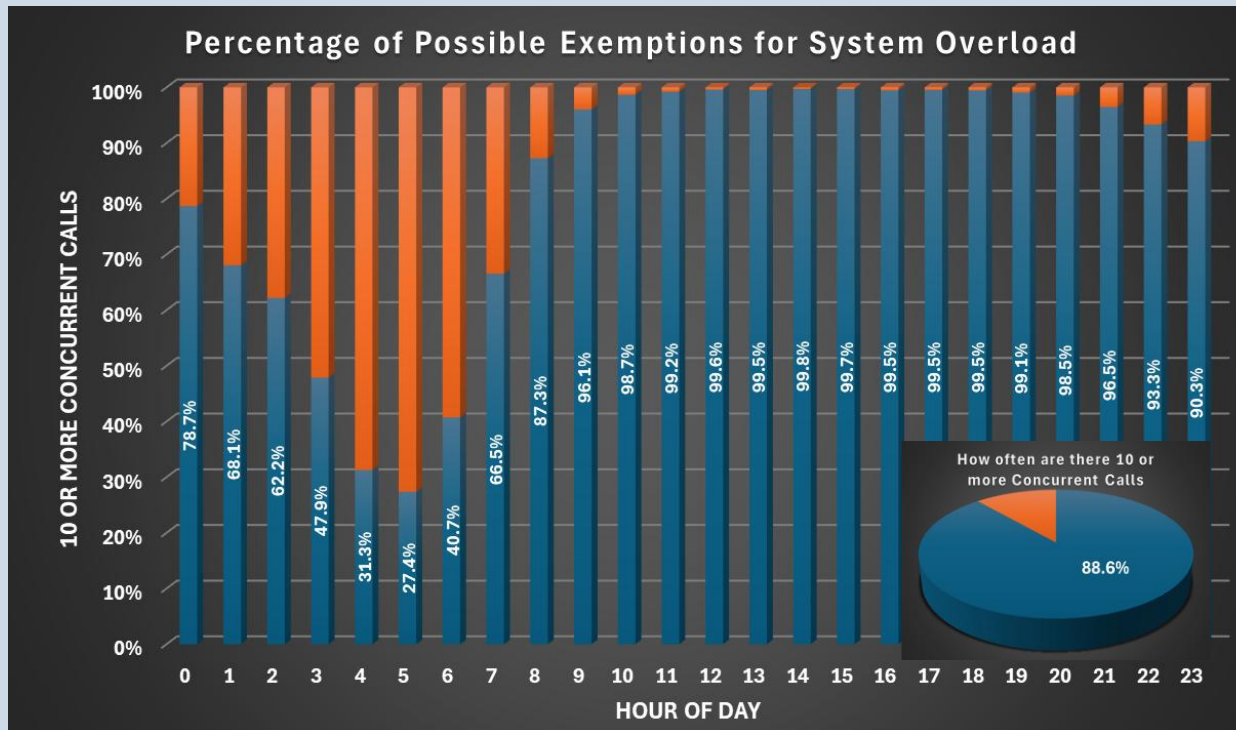
# UHU VS. RAW COMPLIANCE



# RESPONSE TIMES

Current and Proposed Response Time Goals					
Call-Density	Current Standard	Proposed Call-Density Goals			
		High	Medium	Low	Minimal
Priority 1	10:59	12:00	15:00	20:00	30:00
Priority 2	15:00	20:00	25:00	30:00	45:00
Priority 3	30:00	35:00	40:00	45:00	Best Effort
Priority 4	60:00	Best Effort	Best Effort	Best Effort	Best Effort
Priority 11	90:00	90:00	90:00	90:00	90:00

# EXEMPTIONS



# ZONE COMPLIANCE

## Current 3-Zone Compliance

Zone	Responses		Compliance
North	19,263	26.3%	83.5%
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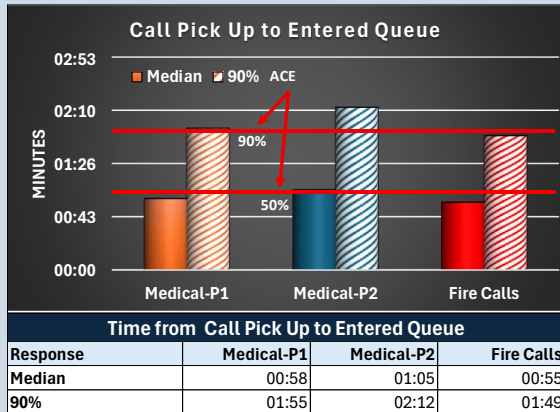
## City/Town Compliance

Zone	Responses		Compliance
Charlotte	63,233	87.2%	84.4%
Cornelius	1,048	1.4%	83.5%
Davidson	503	0.7%	74.6%
Huntersville	2,776	3.8%	81.2%
Matthews	2,599	3.6%	79.3%
Mint Hill	1,328	1.8%	80.6%
Pineville	981	1.4%	79.7%
<b>Total</b>	<b>72,480</b>	<b>100.0%</b>	<b>83.9%</b>

## Zip Code Compliance

Zone	Responses		Compliance
28031	1,047	1.4%	83.5%
28036	504	0.7%	74.2%
28078	2,768	3.8%	81.2%
28104	22	0.0%	81.8%
28105	2,596	3.6%	79.3%
28107	13	0.0%	76.9%
28134	985	1.4%	80.0%
28202	3,220	4.4%	86.5%
28203	1,293	1.8%	88.9%
28204	1,359	1.9%	90.9%
28205	3,771	5.2%	87.2%
28206	3,508	4.8%	89.3%
28207	415	0.6%	88.2%
28208	8,341	11.5%	85.3%
28209	1,026	1.4%	84.5%
28210	2,554	3.5%	82.7%
28211	2,039	2.8%	88.2%
28212	2,695	3.7%	84.5%
28213	2,789	3.8%	84.3%
28214	2,372	3.3%	77.1%
28215	3,385	4.7%	79.3%
28216	4,221	5.8%	88.2%
28217	2,912	4.0%	86.4%
28223	177	0.2%	85.9%
28226	1,702	2.3%	77.7%
28227	2,763	3.8%	81.2%
28262	3,512	4.8%	86.0%
28269	3,807	5.3%	80.9%
28270	841	1.2%	79.8%
28273	2,637	3.6%	85.1%
28277	2,175	3.0%	79.2%
28278	1,035	1.4%	71.9%
<b>Total</b>	<b>72,485</b>	<b>100.0%</b>	<b>83.9%</b>

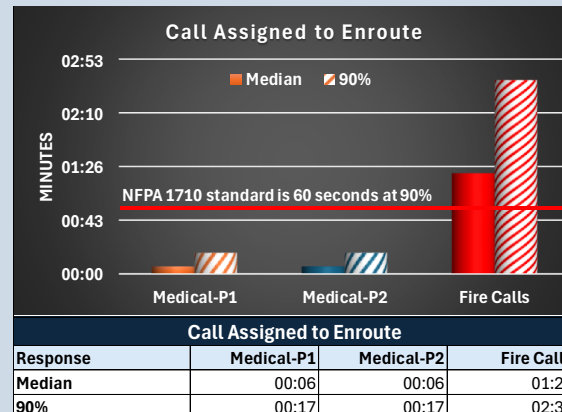
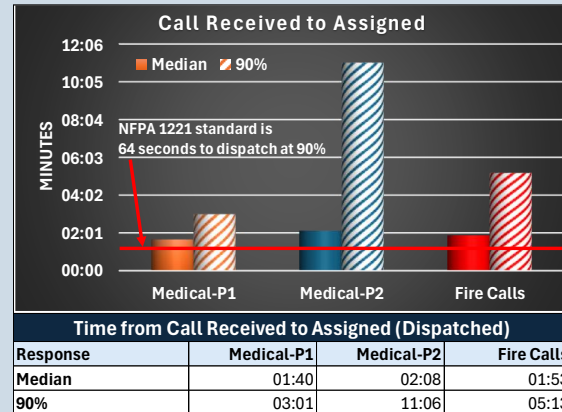
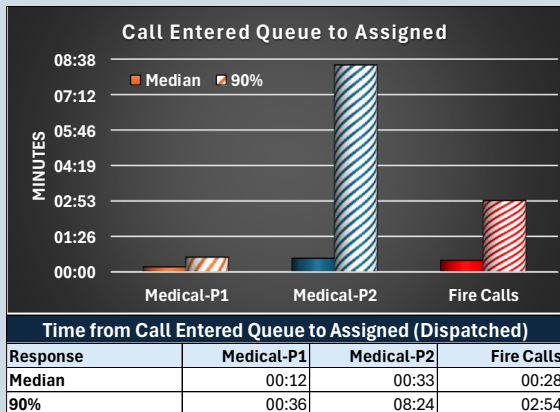
# CALL PROCESSING TIMES



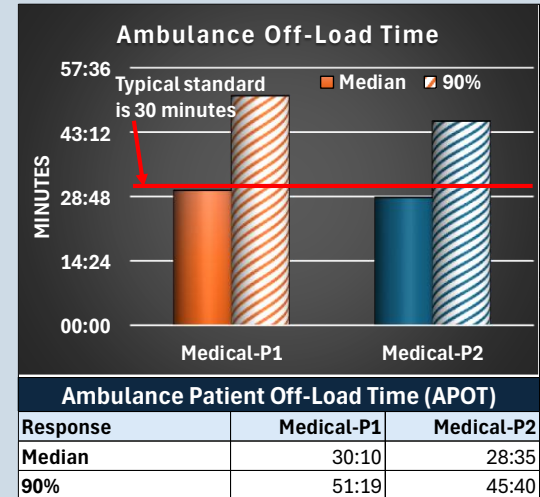
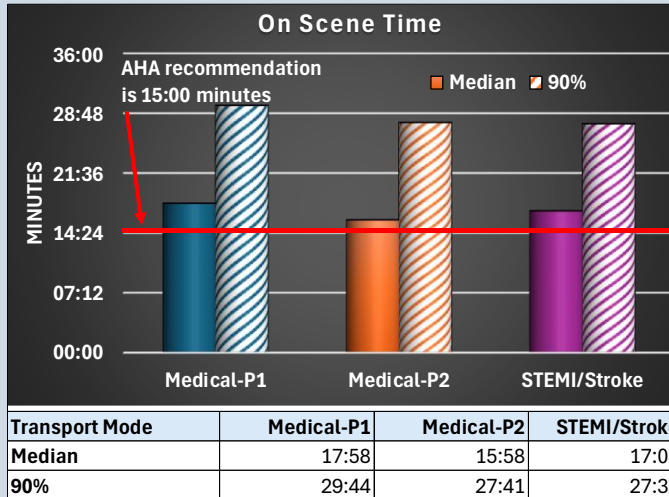
Source: FY25 operations performance data, CAD fire data, 911 calls only (no NET)

Notes: 30 seconds deducted for Call Pick Up to start of EMD process

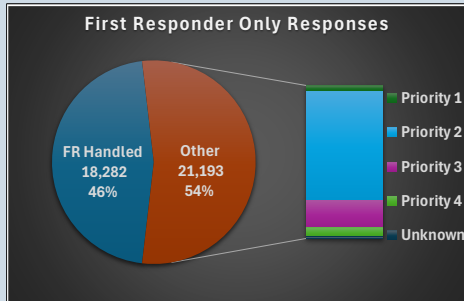
Times longer than 4:00 minutes excluded due to likely data error



# ON SCENE & OFF-LOAD TIMES



# MEDIC HOLD/FROR CALLS



**First Responder Only Responses (FROR)**

Call Type	2025	2024	Total	
Total Calls	19,516	19,959	39,475	100.0%
FR Handled	8,378	9,904	18,282	46.3%
Ambulance Needed	11,138	10,055	21,193	53.7%
Priority 1	397	350	747	1.9%
Priority 2	9,118	5,978	15,096	38.2%
Priority 3	1,100	2,738	3,838	9.7%
Priority 4	420	866	1,286	3.3%
Unknown	103	123	226	0.6%

**First Responder Activity**

Provider	Calls	Hours on Task
Concord	1	0.26
Carolina	37	8.13
Long Creek	84	16.04
Robinson	97	17.59
Cooks	133	26.74
West Meck	164	32.33
Steele Creek	189	38.01
Davidson	203	44.72
Pineville	277	65.38
Cornelius	387	80.81
Idlewild	405	101.19
Mint Hill	486	110.28
Matthews	873	214.86
Huntersville	1,403	289.36
Charlotte*	16,063	3,703.53
<b>Total Hours</b>	<b>20,802</b>	<b>4,749.21</b>
<b>Ambulance Direct Unit</b>		
<b>Hour Cost</b>		<b>\$ 144.67</b>
<b>FROR Value</b>		<b>\$ 687,064</b>

**FROR Valuation**

FROR Calls	19,516
Calls Needing an Ambulance	53.7%
Additional Ambulance Unit Hours Needed	8,870
Ambulance Direct Cost Per Unit Hour	\$ 144.67
<b>Cost of Additional Ambulance Unit Hours</b>	<b>\$ 1,283,191</b>

**First Responder Subsidy**

Town/City	FY 2025
Charlotte	\$ 499,035
Cornelius	\$ 51,278
Davidson	\$ 31,243
Huntersville	\$ 107,240
Idlewild	\$ 31,377
Matthews	\$ 72,242
Mint Hill	\$ 53,502
Pineville	\$ 49,465
<b>Total</b>	<b>\$ 895,382</b>

# FIRST RESPONDER SUBSIDY

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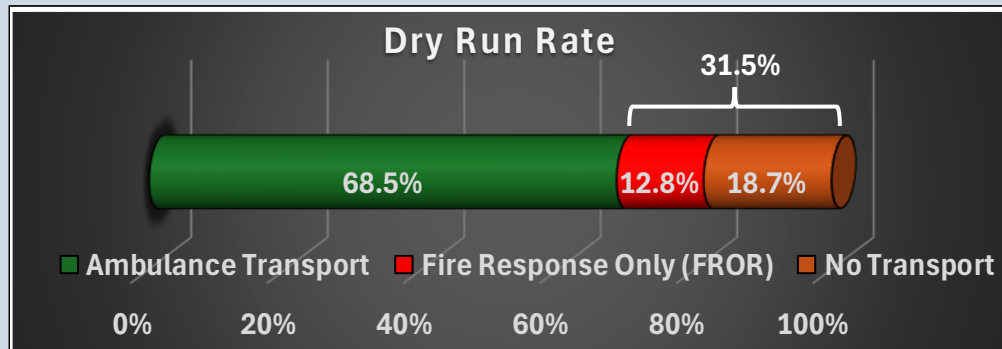
Estimated Value of Dispatch Services				
FY25 Dispatch Expense			\$9,845,849	
Provider	Responses		Value	
Indian Land	22	0.01%	\$1,102	
Tega Cay	23	0.01%	\$1,153	
Bethel	46	0.02%	\$2,305	
Concord	56	0.03%	\$2,806	
Pleasant	62	0.03%	\$3,107	
Riverview	101	0.05%	\$5,061	
Harrisburg	106	0.05%	\$5,312	
Flint Hill	202	0.10%	\$10,122	
Carolina	544	0.28%	\$27,260	
Robinson	1,001	0.51%	\$50,161	
Cooks	1,035	0.53%	\$51,865	
Long Creek	1,250	0.64%	\$62,639	
Davidson	2,276	1.16%	\$114,053	
West Meck	2,286	1.16%	\$114,554	
Steele Creek	2,487	1.27%	\$124,627	
Pineville	2,720	1.38%	\$136,302	
Idlewild	3,178	1.62%	\$159,253	
Cornelius	3,899	1.98%	\$195,384	
Mint Hill	4,084	2.08%	\$204,654	
Matthews	10,125	5.15%	\$507,376	
Huntersville	13,320	6.78%	\$667,481	
<b>Fire Total</b>	<b>48,823</b>	<b>24.85%</b>		\$2,446,579
Medic911	147,657	75.2%		\$7,399,270
<b>Total</b>	<b>196,480</b>	<b>100.0%</b>		<b>\$9,845,849</b>
<b>Per Response</b>				<b>\$ 50.11</b>

# OMEGA CALLS

Omega Calls		
Nurse	1,574	37.6%
Ambulance	1,120	26.7%
Rideshare	552	13.2%
Crisis	537	12.8%
Law	257	6.1%
Poison	142	3.4%
Other	5	0.1%
<b>Total</b>	<b>4,187</b>	<b>100.0%</b>

Source: FY25 Omega data

# DRY RUN RATE



## 911 Call Disposition

Disposition	Calls	
Ambulance Transport	104,810	68.5%
Fire Response Only (FROR)	19,516	12.8%
No Transport	28,658	18.7%
Total	152,984	100.0%