

Memorandum



CITY OF DALLAS

DATE May 9, 2019

TO Honorable Members of the Public Safety and Criminal Justice Committee

SUBJECT **Tiered EMS Dispatch Software-Phase II Pilot Implementation**

On Monday, May 13, 2019, Assistant Fire Chief, Daniel Salazar will brief you on Dallas Fire-Rescue's Tiered EMS Dispatch Software and the department's plans to expand use of the software. Continued use will involve piloting dispatch of Fire Engines to respond to low acuity EMS calls so that DFR can collect data that will assist with long-term strategic planning to address the City of Dallas' continued population and EMS call volume growth. Chief Salazar will be joined, by DFR Medical Director, Dr. Marshal Isaacs as they share details about the pilot program and how data collected will help refine the department's delivery of emergency medical services.

The briefing materials are attached for your review. Please contact me if you have any questions or need additional information.

A handwritten signature in cursive script that reads "Jon Fortune".

Jon Fortune
Assistant City Manager

c: T.C. Broadnax, City Manager
Chris Caso, City Attorney (Interim)
Mark Swann, City Auditor
Biliera Johnson, City Secretary
Preston Robinson, Administrative Judge
Kimberly Bizer Tolbert, Chief of Staff to the City Manager
Majed A. Al-Ghafry, Assistant City Manager

Joey Zapata, Assistant City Manager
Nadia Chandler Hardy, Assistant City Manager and Chief Resilience Officer
Michael Mendoza, Chief of Economic Development and Neighborhood Services
M. Elizabeth Reich, Chief Financial Officer
Laila Aleqresh, Chief Innovation Officer
Directors and Assistant Directors

Tiered EMS Dispatch Phase II Implementation

Public Safety and Criminal Justice Committee
May 13, 2019

Daniel Salazar, Assistant Chief
Dallas Fire-Rescue Department
City of Dallas



Presentation Overview

- Review DFR's implementation of Tiered EMS Dispatch Software (Go-live for Phase I on Nov. 14, 2017)
- Discuss metrics associated with software use
- Cover DFR's plan to pilot dispatch of Engines to handle low acuity EMS calls
- Pilot data will help DFR plan its EMS delivery

2



Tiered EMS Dispatch Software

- Tiered EMS dispatch software is engineered to achieve the following:
 - Elicit good information from callers
 - Provides 911 callers with medical instruction over the phone (i.e., CPR, childbirth delivery, etc.)
 - Categorize medical emergencies to ensure correct match of dispatched resources

3



Background/History

- Council approved purchase of Tiered EMS Dispatch Software (Sept. 2016)
- Engines dispatched as sole resource for low acuity calls- 1 week period (Nov. 2017)
- Outcomes to the trial included:
 - Ambulance availability increased
 - Use of Engines allowed ambulance to remain in service for higher acuity calls

4



Software Use-Data Analytics

- Use of software continues to reveal that 30% of all EMS call volume is categorized as low acuity (Alpha and Omega calls)
- Since initial (Phase I) software launch, Engines have continued response to high acuity EMS calls to assist ambulance crews (Critical patients)

5



Software Use-Data Analytics

- Engine Company dispatches (trial period)-50 % of patients evaluated requested ambulance transport (Low acuity patients)
- PSCJC presentation on Apr. 8, 2018 included low acuity patient disposition options:
 - Telehealth (Biotel-DFR's Medical Control)
 - Alternate methods of transporting patients to clinic appointments (i.e., Partnering with Parkland Hospital or other social service organizations)

6



Planning Phase II-Engine Dispatch

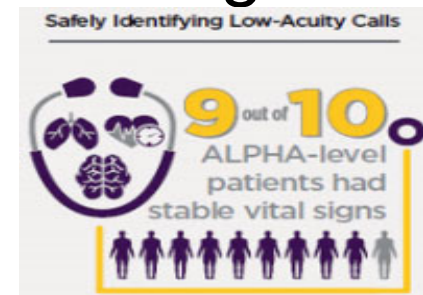
- Components required for Phase II Launch
 - Phase II launch delayed due to high attrition-Newly transferred personnel require extensive training
 - Quality Assurance (QA) program needed strengthening (More personnel trained and certified as QA officers)
 - New Electronic Patient Care Reporting (ePCR) software implementation



7

Planning Phase II-Engine Dispatch

- DFR coordinating with City of Dallas Public Affairs Office for communication on launch of Phase II
- Public perception is that faster response means better service, however:
 - Rapid response is vital for High Acuity Patients (i.e. Heart Attacks, Strokes, etc.)
 - Low Acuity patients are often triaged for several hours at overcrowded hospital emergency rooms



Planning Phase II-Engine Dispatch

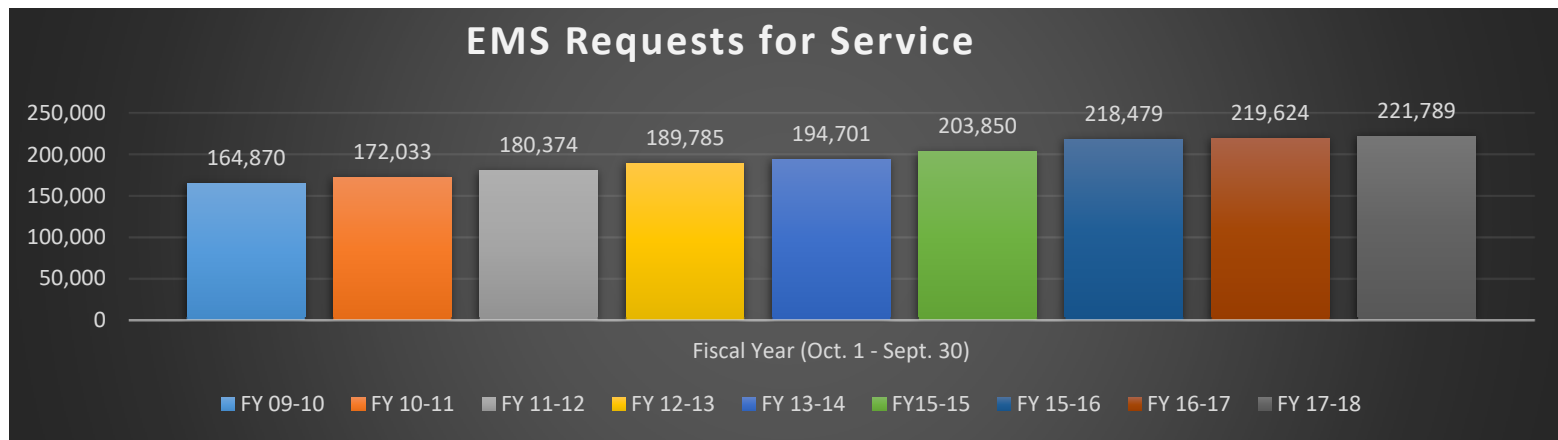
- DFR is collaborating with its Medical Director, CIS Department and other stakeholders to coordinate Phase II launch (June-July 2019)
- Field responders (Engine crews) needed more education on new deployment model and DFR is creating video-based learning to address roles/responsibilities

9



Next Steps with Tiered EMS Dispatch

- EMS call volume trends-Increased between FY 10 and FY 18 (34.5%)



Fiscal Year (Oct. 1 - Sept. 30)	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
EMS Requests for Service	164,870	172,033	180,374	189,785	194,701	203,850	218,479	219,624	221,789

Total Hours of Ambulance Service	FY 09-10 348,724 Hours	FY 17-18 390,564 Hours	12% Increase
----------------------------------	------------------------	------------------------	--------------

Next Steps with Tiered EMS Dispatch

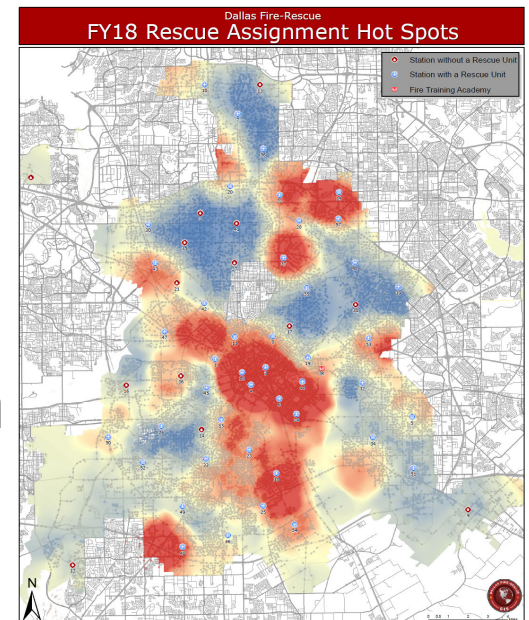
- FY 18 EMS Volume equated to 221,789 responses
 - Some of these calls included Engine responses
 - 30% of 221,789 equates to 66,536 responses or an average of approximately 3 responses per shift for each Engine (Low acuity calls-30%)



11

Next Steps with Tiered EMS Dispatch

- Undertake a 2-3 month pilot program to collect data using Engines to respond to low acuity EMS calls
- This will aid DFR further analyze:
 - Overall response time impact
 - Identify potential locations to situate alternate response units
 - Identify other unknown issues with adding Engine Companies to low acuity EMS calls (System impact)



12

Looking Ahead-Priority Dispatch Use

- Shifting low acuity EMS calls to Fire Engines does bring concerns:
 - Increased wear and tear on Engines
 - Engines unavailable to handle other types of calls (i.e., Structure fires, etc.)
 - Greater frequency of Engines being out of service for preventive maintenance
 - Replacement cycles shortened



13

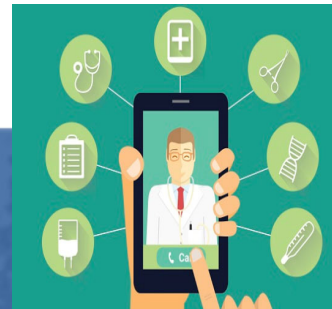
Looking Ahead-Priority Dispatch Use

- Alternate fleet resources continue to be considered (i.e., SUV vehicles and alternate transport capable units-more fuel efficient and maneuverable)
- Proposed policy changes, Telehealth and alternate options for low acuity EMS patient disposition will continue to be explored with DFR's Medical Direction team

14

Data Analysis for EMS Delivery Options

- Data collected will assist DFR to determine where and how to deploy alternate EMS response vehicles
- Pilot program will also help determine how alternate EMS delivery options will be used
- DFR will review and establish time response benchmarks for low acuity EMS calls based on data collected and stakeholder expectations



15

Tiered EMS Dispatch Phase II Implementation

**Public Safety and Criminal Justice Committee
May 13, 2019**

**Daniel Salazar, Assistant Chief
Dallas Fire-Rescue Department
City of Dallas**

