

EMS Delivery Modification Plan

Right Resource, Right Time, Right Place

December 9, 2016



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DIVISION OF FIRE

KEVIN O'CONNOR
Fire Chief

OVERVIEW

- Mission Statement
- Where We Are Now
- Challenges
- Where We Want To be
- How To Get There
- Fiscal Impact?



OUR MISSION

- The mission of the Columbus Division of Fire is to serve our community by:
 - Preventing emergencies through education and inspection;
 - Minimizing injury, death, and property destruction due to fires, natural disaster and other emergencies;
 - **Minimizing injury, death, and suffering by providing timely and effective emergency medical service.**



OUR MISSION (continued)

- Patient care is and will always be the Division's highest priority.



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WHERE WE ARE NOW

- All 1,535 firefighters are certified as Emergency Medical Technicians – Basic (EMT-B). Additionally, 674 of the 1,535 are also certified paramedics.
- The Division of Fire has operated an all Advanced Life-Support Emergency Medical Services (“ALS EMS”) delivery model since 1996 (two paramedics per ambulance or medic unit). This exceeds the state’s minimum requirement of (1) paramedic and (1) EMT-B. Moreover, at least (1) paramedic is assigned to each Engine Company.
- Our EMS delivery system is unique in that both a Medic and Engine routinely respond to a call for service. This results in at least (3) paramedics at the scene.
- Currently, on a typical EMS run, the ALS model has a paramedic attending to patient care and the other paramedic driving to the hospital.



WHERE WE ARE NOW (continued)

- All 32 stations have an ALS equipped ambulance referred to in the Division as a “Medic”.
- Division has added five (5) part-time “Peak-Demand” Medics as a result of the increased demand.
- Currently, for every transport Medic placed in-service, the Division must add (2) additional paramedics to our daily minimum staffing, forcing the Division to call in paramedics on overtime daily.
- Each of the Division’s 34 engine companies are equipped with ALS equipment and are staffed with at least (1) paramedic.



CHALLENGES

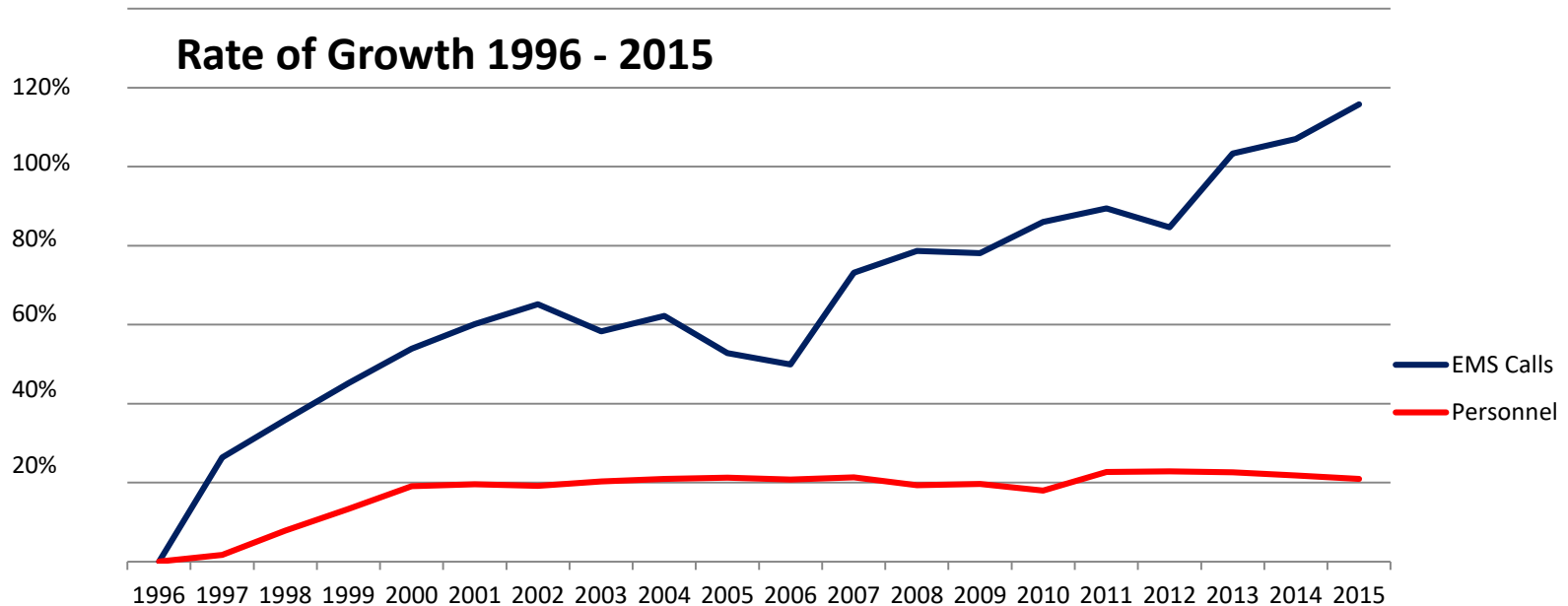
- Sustainability – Historic and projected growth and demand for services;
- Stagnant staffing;
- Burnout and Compassion Fatigue of paramedics;
- Dilution of opportunities to utilize critical, complex skills.



CHALLENGES – SUSTAINABILITY

- Since 1996, the EMS model has seen an increase of 115% in demand for service, while staffing and resources have stayed stagnant.
- The Division's EMS model has gone from handling 62,000 EMS calls in 1996 to over 133,000 in 2015, leaving a call volume increase of more than 100% since 1996.
- Currently, the Division's deployment model, which was designed to handle 169 runs per day, routinely sees calls for service exceeding 500 per day & over 600 on high demand days.

CHALLENGES – SUSTAINABILITY



EMS Calls:	62,000	(1996)	→	133,000	(2015)
Personnel:	1,269	(1996)	→	1,535	(2015)
Population:	675,045	(1996)	→	850,106	(2015)

CHALLENGES – SUSTAINABILITY

- Of the 133,000 EMS calls for service:
 - BLS – 67% (89,212)
 - ALS – 33% (43,940)
- Of the 33% ALS calls:
 - 54% (23,728) required transport
- This illustrates the overutilization of paramedics in basic EMT roles

CHALLENGES – BURNOUT (continued)

- While our run volume has increased over 115% - our staffing has not kept pace. **In essence, the same number of personnel are doing twice the work they were doing in 1996.**
- Patient care **MUST** be the Division's highest priority.

CHALLENGES – SKILL DEGRADATION

- An additional concern voiced over many years of operating a single tiered all ALS system is paramedic skill degradation. Previous to this system change in 1996, the Division operated a two-tiered system of Basic Life Support (“BLS”) Squads and ALS Medics, the skill sets for procedures such as intubations and intravenous therapy access were more commonly done by a relatively few Medics vehicles (5 in total), these procedures are now spread amongst 32 Medic vehicles and 658 paramedics.
- By reducing our demand for paramedics, we will be providing more skill retention opportunities for a smaller group.
- The more repetition a member has with a skill has been shown to increase their competency and decrease any skill degradation.
- In brief, this deployment change will reduce skill degradation by giving more opportunities to perform the skill to less people while also increasing the supervisory oversight each time the skill is performed.

WHERE WE WANT TO BE – P/B DELIVERY MODEL

- Internal and external studies have shown P/B systems to offer the same care as a (2) paramedic system.
- Each member is qualified to ride the transport vehicle, but the Division's current model only focuses on the paramedic qualification.
- Every firefighter and officer is already trained to at least EMT-B qualifications. However, this training will be enhanced with this new model.



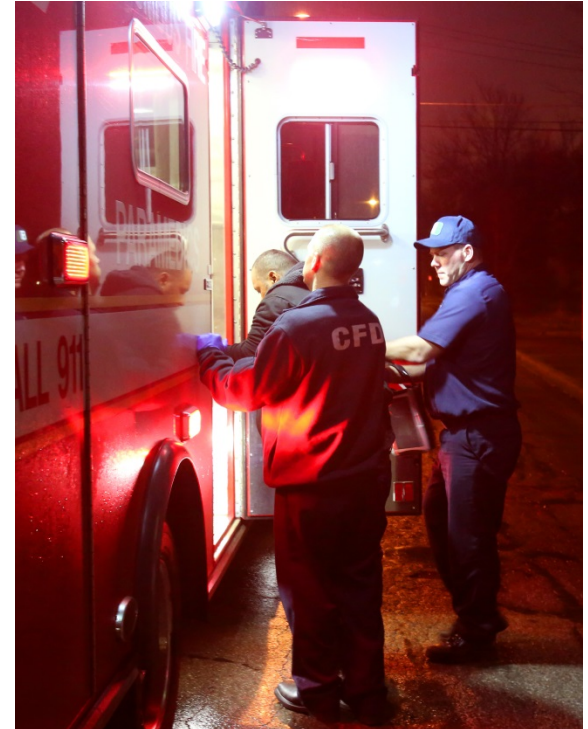
WHERE WE WANT TO BE - RIGHT RESOURCE, RIGHT TIME, RIGHT PLACE

- This new model will provide the ***Right resources, at the Right time, at the Right place***. Consequently, the Division is able to align our resources with the calls for service at the right time.
- Currently, on a typical EMS run, the ALS model has a paramedic attending to patient care and the other paramedic performing non-patient care responsibilities.
- The new deployment model would still have at least one (1) paramedic attending to patient care, while an EMT-B would assume the non-patient care responsibilities.



WHERE WE WANT TO BE – INCREASED ACCOUNTABILITY, OVERSIGHT, AND PATIENT CARE

- To increase accountability and assure higher quality of patient care:
 - Smaller, manageable cadre of paramedics who are highly skilled and highly experienced;
 - Raising the Division's standard of care and providing better accountability through a mandatory recertification & evaluation process on a yearly basis at minimum;
 - Instilling confidence in the P/B Medic crews who would know help is on the way on difficult runs. Support will be provided by additional paramedics responding with the Engine Company and/or EMS Officer.



HOW TO GET THERE – INCREASED EMT-B TRAINING

- Although EMT-B's are fully qualified according to the State of Ohio, the Division will continue to provide additional training to exceed the minimum standards.
- The Division will use the same training model that was tested by the Division in 2014 to provide additional training to the EMT-B's.



INVESTMENT IN THE DIVISION OF FIRE & NEIGHBORHOODS

- An additional Fire Recruit Class of 25 (December 2016) - bringing the total number of new firefighters to 65 for 2016.
- Hiring 80 new firefighters in 2017 – this will be the largest amount new firefighters in years.
- Converting the five (5) part-time Peak Demand Medics to full-time 24/7/365.
- Additional three (3) EMS Officers – providing oversight, training and CQI to the EMS system.
- Re-Opening of Station 2 (4th & Fulton Ave.) that will add an additional ALS Engine Company and ALS Medic to the fleet. Spring 2017
- Opening a new Station 35 that will protect the far-eastside residents. Fall 2018



NEXT STEPS

- Notify all members of system change. Informational meetings with our members begin next week.
- Meet with Battalion Chiefs to assist with transitioning ES personnel.
- Re-assigning and/or acquiring one additional EMS vehicle for EMS 10 Captain.
- Finalize measurable benchmarks.
- Training and providing the EMT-Bs with ride time. Beginning in January 2017.
- Accomplish the first round of the EMS Officer qualification training process.
- Implementation of the new EMS deployment model – Spring 2017.



SUMMARY

- Allows the Division to focus 100% on the primary mission of minimizing injury, death and suffering by providing timely and effective patient care.
- Allows supervisors to be supervisors by taking away direct patient care responsibilities.
- Creates a smaller, manageable cadre of paramedics who are highly skilled and highly experienced.
- 100% of the personnel can do 100% of the work .



TERMS & MEANINGS

- **“Advanced Life Support (ALS)”** is an advanced set of protocols that extend past Basic Life Support to further assist the injured or ill patient in opening up their airways, breathing and getting air throughout the body, and promoting blood circulation in emergency situations.
- **“Burnout”** is defined as exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration.
- **“Compassion Fatigue”** is a condition characterized by a gradual lessening of compassion over time. It is common among individuals that work directly with trauma victims such as, first responders, nurses, etc.
- **“Emergency Medical Technician Basic (EMT-B)”** is a specially trained medical technician certified by the State of Ohio to provide basic emergency services before and during transportation to a hospital.



TERMS & MEANINGS (continued)

- **“EMS Continuous Quality Improvement (CQI)”** is the continuous monitoring of the EMS system performance as a whole to identify opportunities for improving operational policies, treatment protocols and processes.
- **“EMS Officer”** use advanced paramedic training and leadership skills to provide oversight of EMS personnel working in the field.
- **“Medic”** a vehicle specially equipped for taking sick or injured people to the hospital during an emergency – also known as an Ambulance.
- **“Paramedic”** is a specially trained and certified by the State of Ohio to manage the emergency care during transport to a hospital, including administration of injections and intravenous fluids, reading of electrocardiograms, and other ALS measures.
- **“Peak Demand Medics”** are ALS staffed transport vehicles placed in areas of high demand calls for service.

