Fire Service-Based EMS
Promoting the Benefits
When you call 9-1-1...

- Who do you want to respond?
  - A-Team
  - B- Team
  - C- Team
Introduction

• Why do fire departments provide EMS?
The Real Reason

• Why do fire departments provide EMS?
  • Better service
  • Core government function
  • Greater good of the community
  • Quality of life
  • Value
  • Similarity of life saving goals
The Real Reason Fire Departments Really Provide EMS

Every day someone who has had a bad day returns to their normal life because of fire-based EMS.
U.S. Fire-Based Facts

- 95% of career Fire Departments provide EMS at some level- ranging from first response-defibrillator to advance life support (ALS) with transport.
- 80% of career firefighters are cross trained multi-role firefighter-EMTs (BLS)
- 34% of career firefighters are firefighter paramedics.
U.S. Fire-Based Facts

- Prehospital 9-1-1 emergency response is one of the essential public safety functions provided by the United States fire service.

- Career firefighters (EMTs and paramedics) respond to 9-1-1 medical emergencies for more than 85% of the population.
U.S. Fire-Based Facts

• Fire service-based emergency medical services (EMS) systems are strategically positioned to deliver time critical response and effective patient care.
U.S. Fire-Based Facts

• The fire department is geographically deployed throughout the community to minimize response times.

• When response time is the priority for medical emergencies.

• Firefighters are in the best position to respond quickly and provide vital services.
• Of the 200 most populated communities, 97 percent have the fire service delivering pre-hospital emergency medical service response.

• Additionally, the fire service provides critical advanced life support (ALS) response and care in 90 percent of the 30 most populated United States cities and counties.
EMSS Defined

• Much of the dialogue in the public arena today concerning prehospital 9-1-1 emergency medical care often focuses on ambulance services and, accordingly, may ignore the important distinction between prehospital 9-1-1 emergency medical response and the other key uses of the ambulance-based, out-of-hospital providers for non-emergency medical and transportation services.
Non Emergent Service

- Sub-specialties of ambulance service in the out-of-hospital arena must not be confused with 9-1-1 emergency response.

- For example, ambulance services are often employed for:
  - interfacility transfers for specialty care
  - need to transfer patients from one hospital to another
EMS Defined

• For government decision makers who do not work in the public safety environment, it may be difficult to appreciate the differences between;
  – emergency response and
  – ambulance transport.

• Likely to define a call to 9-1-1 in a medical emergency as ‘needing an ambulance.’
U.S. Fire-Based Facts

- The ride for the sick or injured person in the ambulance is only part of the system.
- A comprehensive EMS system includes rapid response, intervention, stabilization, and then transportation to a definitive care facility, if needed.
EMS Response Defined

• Ambulances, of course, are necessary to transport patients to a hospital where more definitive care may be needed.

• However, the most reliable vehicle to ensure a rapid response generally is the neighborhood fire truck.

• Recent advances in resuscitative medical care, particularly in cardiac emergencies, what occurs in the first few minutes after onset of the medical emergency will change the long term outcome.

• In many of these critical circumstances, what happens on-scene determines whether the patient lives or dies.
EMS Defined

• Therefore, prehospital 9-1-1 emergency response, is not only a key function of each community; it has become, almost universally, a principal duty of the fire service as well.
Benefits of EMS

The goal of this discussion is to resolve and demonstrate that the use of fire service equipment and personnel to provide 9-1-1 emergency response is the best approach for a community regardless of size.

If EMS is the intersection of public safety, public health, and medical care... The U.S. Fire Service is uniquely qualified to be at that intersection.
U.S. Fire-Based Facts

• Fire service-based EMS brings the treatment to the patient wherever they are. Treatment by firefighters begins immediately, even if the patient is trapped in a building that’s on fire, pinned in a car crash, or in a collapsed structure.

• The provision of EMS response, treatment, and transportation by firefighters is seamless. One agency is responsible for the continuity of patient care and provides EMS within an “all-hazards” response model.
EMS Response Defined

• Now equipped with automated defibrillators to reverse sudden cardiac arrest, the fire truck, coupled with bystander CPR, has become one of the greatest life-saving tools in medical history.

• Time efficiency is a key component of the best designed EMS systems.
  – Stroke centers to treat stroke within the golden 3 hour window,
  – Cardiac catheterization centers to treat heart attack in the 90 minute door-to-balloon time, and
  – Trauma centers to treat hemorrhaging patients,

• The service most capable of rapid multi-faceted response, rapid identification and triage to the appropriate facility is a fire service-based EMS system.
Multi-Role Responders

“All Hazard”

• Fire service-based prehospital 9-1-1 emergency medical care systems are more effective from the perspective of scene safety,
  – short response time,
  – integrated rescue and treatment, and
  – transport to a medical facility.

• Firefighter response is a key element of patient safety, both medically and environmentally.
Multi-Role Responders

“All Hazard”

- In the era of homeland security threats and the spiraling growth of the commercial transport industry, the threat of hazardous materials (Haz-Mat) is center-stage.
- Fire service Haz-Mat teams are the front-line of protection.
- Rapid delivery of medical care can be pre-empted by such chem-bio threats, but where rapid care can be given, it can be expedited directly by cross-trained fire-service Haz-Mat care providers.
Most Effective System

• The U.S. Fire Service-based emergency response and medical care system is the most effective, coordinated system worldwide.
• The National Incident Management System (NIMS) and other nationally-defined coordination plans ensure that fire service-based 9-1-1 emergency response and medical care provides skilled medical services to the patient regardless of:
  – the circumstances
  – the location or
  – condition of the patient.
U.S. Fire-Based Facts

• Firefighters are long-term workers in their communities.

• Most fire departments have very low turnover rates.

• Firefighters know about the needs in their communities...and firefighters are highly experienced emergency medical care providers.
U.S. Fire-Based Facts

• The fire service EMS deployment model is more robust than any private for-profit ambulance-based EMS model.
• Firefighters are deployed and ready to respond to any type of emergency.
• Fire Service-based EMS provides this pivotal public safety service while also emphasizing responder safety, competent and compassionate workers, and cost-effective operations.
History of Maltese Cross

• During the Middle Ages, the Knights of Malta, the forerunners of the fire service, took care of travelers and specifically burn victims from the Crusades and associated battles.

• Eventually, the Knights of Malta adopted the Maltese Cross as their emblem and it has created a revered legacy for fire departments.
History of Maltese Cross

• Known as the Hospitallers of Jerusalem
• Hospitallers became firefighters out of necessity
• Weapons of war at that time was the glass fire bomb
• After rescuing a fellow knight from the inferno and extinguishing the fire, a Hospitaller was awarded a medal, shaped like a Maltese Cross
History of Maltese Cross

• Maltese Cross as their identifying mark on armor
• More than 1200 years ago, some of the earliest ancestors of the fire service were “all-hazards responders
• These are two of the concepts firefighters still believe in today and hold as their most sacred responsibilities—caring for the sick and caring for their own.
Community-Based

• Community-based fire station, with its ready availability of personnel 24 hours a day
• the unique nature of medicine outside of the hospital,
• creates a symbiotic blend of the traditional public concepts and duties of the fire service with rapid delivery of advanced prehospital 9-1-1 emergency response and care.
Community-Based

- Fire stations are strategically placed across geographic regions, commensurate with;
  - population densities
  - workload needs
- All-hazard response infrastructure meeting the routine and catastrophic emergency needs of all communities... regardless of the nature of the emergency.
Safety Net

• Prehospital 9-1-1 emergency patient medical care is a major part of the safety net for the American healthcare system.
• Provider of last resort for the needy
• Fire service-based, prehospital 9-1-1 emergency patient medical care provides unconditional service to all members of the population
The Public’s Knowledge of EMS

- Limited
- Everyone is a Paramedic
- Don’t know ALS from BLS
- Someone always shows up
EMS System Models (Deployment Configuration)

- Fire service-based system using cross-trained/multi-role firefighters.
  - Firefighters are all-hazards responders
- Fire service-based system using employees who are not cross-trained as fire suppression personnel.
  - Single role EMS-trained responders accompanying firefighter first-responders
- Combined system using the fire department for emergency response and a private or “third service” provider for transportation support.
  - Single role emergency medical technicians and paramedics accompany firefighter first responders to emergency scenes to provide patient transport
Study Objectives

• Determine how;
  – First responder crew size,
  – ALS provider placement and
  – Number of ALS providers

...is associated with the effectiveness of EMS providers.
Results: ALS Arrival (Trauma)

- Crews with 1 ALS on the engine and 1 ALS on the ambulance completed all task 2.3 minutes faster than crews with 2 ALS on the ambulance.
  - Once again the ALS on the First responder crew makes a difference.
  - Analysis of start time and duration of ALS task are still ongoing.
Results: ALS Arrival (Trauma)
Results: ALS Arrival (Cardiac)

- The crews with 1 ALS on the engine and 1 ALS on the ambulance performed 2 minutes faster than the crews with no ALS on the engine and one ALS on the ambulance.
Results: ALS Arrival (Cardiac)

- The crews with 1 ALS on the engine and 1 ALS on the ambulance were able to initiate critical skills earlier and perform them in a shorter time duration.
  - 12-Lead applied sooner
  - Intubation – shorter duration to complete
- 4-person FR crews performed both tasks earlier and in less time than other crew sizes.
First Responder Crew Size (Cardiac)

- 4 FR
- 3 FR
- 2 FR
- 0 FR

- At Patient
- ABCs
- Interview
- Oxygen
- Vitals
- 12-Lead
- Expose
- Arrest
- Move
- Patient
- ABCs
- Defib Pads
- Shock
- ABCs
- CPR
- Airway
- IV
- Epi
- Shock
- ROSC
Many lives are lost across USA because emergency services fail

Turf wars between ambulance, fire crews cause deadly delays

By Robert Davies
USA TODAY
WASHINGTON — Help came too late for Julia Rustow. The 21-year-old Yale sociology student, an accomplished runner, collapsed on a busy street corner in the nation’s capital on a summer morning in 1999 after working out at a nearby gym.

Rustow had more than a fighting chance. Every year, this young woman was examined by a cardiologist, who prescribed daily aspirin—regrettably, the doctor had no idea that a sudden electrical short circuit in her heart had rendered her unable to respond to a defibrillator, a common medical device known as a defibrillator. Emergency responders saw her fall, rushed to help and immediately called 911.

But Rustow’s life ticked away on the corner where she fell. The ambulance crew, surrounded by 150 onlookers, could not revive her. The fire department, which had responded, was not allowed into the building.

In 1999, 563 people died of cardiac arrest in Washington, D.C. Rustow was the 11th. She had been an accomplished runner, and would have lived if she had been treated immediately. Instead, she died in the street where she fell.

“Turf wars” are a major problem in the nation’s capital and other large cities. They are a common cause of life-threatening delays in the care of those suffering heart attacks. The delays mean lives are lost because the emergency medical system is too slow.

In 1999, 44 percent of the nation’s 50 largest cities had delays of more than six minutes for emergency calls. In the nation’s capital, delays were a problem in more than half of all calls for emergency medical services for heart attacks in 1999.

Hundreds of people die needlessly each year because emergency systems fail to recognize heart attacks, delay critical treatment, and fail to provide proper care for those who suffer cardiac arrest. However, the problem is more than just a matter of delays. It is a matter of lives saved and lost.

Turf wars between the nation’s capital’s competing medical systems mean that some patients receive prompt medical attention, while others do not. Firefighters are often instructed not to enter buildings, even when they contain heart attack victims.

The 1999 death toll in Washington, D.C., was 563. The city has a population of 600,000, and more than 100,000 people work in the city. The city’s fire department is responsible for the city’s emergency medical services.

As a result, lives are lost needlessly each year. In 1999, 563 people died of cardiac arrest in the city. Rustow was the 11th. She had been an accomplished runner, and would have lived if she had been treated immediately. Instead, she died in the street where she fell.

# USA Today. May 20, 2005
Policy Maker’s Knowledge of EMS

- Not much different than the public
- Often get information from private sector
- Believe that the private sector is free
- Get bonus points for privatizing
Talking Points of Fire-Based EMS

• Continually emphasize service
• Control emotions
Advantages of Fire-Based EMS

- Response time
- Station locations
- Quicker start of treatment
- Marginal costs
- Human resources
- Rescue capabilities
Paramedic to Patient Side

- Best chance to save a life
- Shorter hospital stays
- Less time in rehab
- Early pain management
- Continuity of care
- Faster return to pre-injury/illness condition
Items for Detailed Discussions

- Privates are not free
  - Subsidized through money & personnel
- Fire departments “stop the clock”
- Fire departments begin treatment
- Extra hands are needed for services
  - Patient care
  - Patient movement
Benefits in Addition to Improved Service

- Marginal Costs
- Money stays in community
- Personnel for fire response
  - Regardless of number of fires
Challenges to Fire-Based EMS

• Transport to limited facilities
• Units out of service longer
• Won’t be available if fire strikes
• Government should look to privatize
• Perception that it is a union issue
• Privates are doing just fine – no complaints
Preparation

- Credibility
- Trust
- Credentials
- Knowledge
- Support of medical professionals
- Marketing
- Customer service
- Professionalism & Appearance
Things to Avoid in Discussions

- Saves firefighter jobs
- Makes money
- Not enough fire to support staffing
- Criticism of privates
- Anything that appears self-serving
Fire Service Based EMS Advocates Resources

• National organizations like IAFC, IAFF, Metro Chiefs and CFSI
• FB EMS Advocates
  – White Paper
• FB EMS ToolKit
• FB EMS Guidebook (IAFF)
• Videos (DVD)
  – Right response
  – National Medical Report
• http:www.fireserviceems.com/
SUMMARY
Questions?