Human Resources

* There are 4 nationally accepted levels of EMS provider:
  – First Responder
  – EMT – Basic (formerly called EMT-A)
  – EMT – Intermediate
  – EMT - Paramedic

First Responder

* Initially an outgrowth of police training
* Now a formalized 40 course
* Recognized by the NREMT

EMT Basic

* Formerly an 82 hour course, now varies to 110 – 130 hours
* Very different than in the past
* Very different from state to state

EMT-Basic

* Some states allow Basics to intubate, administer a host of drugs and start IVs.

EMT-Intermediates

* Have all of the Basic's skills and knowledge and can do more.
* Course length is 250 – 300 hours.
  – Not recognized in all states

EMT-Paramedic

* Has all of the skills and knowledge of the EMT Basic and Intermediate and has a deeper knowledge base.

Specialties

* Diversity of heath care and demands to cut cost have led to specialized areas in EMS:
  – Critical Care
  – Wilderness
  – SWAT
  – Air Medical

Areas of Practice

* Third Service *government*
* Fire Based Service
* Hospital Based Service
* Private
* Volunteer

Other Professions

* Many other professions influence EMS
  – Nursing
  – Medicine
  – Allied Heath

Other Professions

* Nursing
  – Processed through a transition from certificate hospital specific programs to college and university
  – Moved on to MS and PhD related studies

Other Professions

* Nursing
  – Master's level nurses can be independent practitioners
  – Some states use MICNs as medical authority over EMS (e.g., CA and NC)

Other Professions

* Medicine
  – Originally seen as "control" now seen as "direction"
  – Partners with special knowledge
  – Some in EMS prefer "control" while other prefer "direction".

Other Professions

* Medicine
  – Which do you prefer?
  – Why?
  – How do you justify your answer?

Other Professions

* Medicine
  – Physicians serve as medical director for EMS services and this is the basis for practicing medicine by EMS
  – Regulation and accreditation require Physician involvement

Other Professions

* Medicine
  – Emergency rooms were formerly staffed by interns or any physician on staff
  – No special emergency focus was required

Other Professions

* Medicine
  – Now Emergency Medicine is a recognized specialty

Other Professions

* Medicine
  – Early involvement in EMS included the American Academy of Orthopedic Surgeons (and the creation of the AAOS "orange" book)

* Allied Health
  – X-ray, lab and respiratory (and others) all have special knowledge that can be shared with EMS

Others in EMS

* Telecommunicators
  – Once the unappreciated member of the team, now recognized as a valued specialty
  – Moving from the "I can't work in the streets so I will work in dispatch." mindset.

Others in EMS

* Telecommunicators
  – The work of Jeff Clawson has created an a appreciation for prearrival instructions and DLS (dispatch life support)

Others in EMS

* Card Systems

Others in EMS

* Card Systems

Others in EMS

* Support agencies
  – Many fire departments provide EMS, some only assist in an ancillary role
  – Some law enforcement agencies use the "public safety" model (arguably not usually effective) but will provide support for operations

Career vs. Volunteer

* What are the differences to
  – EMS?
  – Healthcare?
  – Patients?

Organization and Unionization

* International Association of EMTs and Paramedics
* Professional EMTs and Paramedics
* Teamsters

Organization and Unionization

* What are some of the benefits to unionization?
* What are some of the harmful aspects?

Stress

* Eustress
  – usefull
* Distress
  – harmfull

Stress

* How do most services currently manage distress?
* Where did this strategy come from?

Stress

* What does the current literature say about handling stress?
  – CISD

June 2003: EMS insider

Transportation

* Once we were "ambulance drivers"
* Now education has led to EMT or Paramedic in many areas

Fire Service

* There is a strong history in fire service as a provider of EMS
* Early pioneers in defibrillation and paramedicine were in fire service

Fire Service

* What are some examples of fire-based EMS in KY?
* How do they differ from each other?
* How are they the same?

Fire Service

* What are the <u>benefits</u> for EMS to encourage fire-based model?
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Fire Service

* What are the <u>harms</u> to EMS to encourage fire-based model?
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Commercial

* Who are the big players in KY?
* Who are the big players in the U. S.?
* Why does privatization make sense or does it NOT?

Commercial

* What things constrain and or help private EMS versus public?

Commercial

* Does private EMS deserve the reputation it has in KY?
* What is that reputation as you see it?

Third Service

* Government operated EMS is different from private in some important ways. What are they?
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Third Service

* What are some examples of third-service agencies?

Public Safety

* This unique model has personnel who are trained (educated) as EMS, law enforcement, and fire.

Public Safety

* What are some of the benefits to a community with this model?
* Are there any potential harms?

Public Safety

* What does this model do for:
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Hospital-Based

* Typically EMS is organized underneath the emergency department's Nurse manager.
* EMS may have non-nursing immediate supervisor

Hospital-Based

* What are some examples of hospital-based agencies?

Hospital-Based

*

Hospital-Based

* What are some of the benefits to a community with this model?
* Are there any potential harms?

Hospital-Based

* What does this model do for:
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Ambulance Trust

* In this model there is a board that oversees the operations

Ambulance Trust

* This board is made up of communities and health system leaders.

Ambulance Trust

* What are some of the benefits to a community with this model?
* Are there any potential harms?

Ambulance Trust

* What does this model do for:
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Public Utility

* In this model the community (government) owns the business
  – Ambulances
  – Medical devices
  – Stations
  – uniforms

Public Utility

* What does this model do for:
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

Public Utility

* It contracts with an entity to provide personnel.

Public Utility

* What are some of the benefits to a community with this model?
* Are there any potential harms?
  – How are the vendors held accountable?
  – What if they fail to meet expectations?

Delivery Systems

* What is the difference between fixed and non-fixed posting systems?
* Give examples of each.

Delivery Systems

* High performance systems
  – Where do we see them and do they work?
  – What does the current literature say about them?

High Performance Systems

* What are some of the benefits to a community with this model?
* Are there any potential harms?

High Performance Systems

* What are some examples of these?

High Performance Systems

* What do they do that makes them high performance?
* What is *system status management*?

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

* They study their call volume and decide upon resource needs.

High Performance Systems

∗ Shifts are typically
  – 8 hour
  – 9 hour
  – 10 hour
  – 12 hour or
  – 14 hour

High Performance Systems

∗ Management wants maximize their units' work load without overload.
∗ UHU are important

High Performance Systems

∗ For example:
  – A unit that completes 2 calls in 5 hours (UHU of .4) is less productive than a crew that runs 4 calls in 5 hours (UHU of .8).
  – Crews that run long distance trips and special circumstances are not counted in the mix.

High Performance Systems

∗ Crews may be placed upon "high performance" trucks. These are run hard (maybe a UHU of 1.0 or higher) until they meet a quota.

High Performance Systems

∗ Once they run a set number or hours or a set number of calls, they can go home.
∗ Is this a good idea?

High Performance Systems

∗ What is "peak hour" staffing?
∗ What is "peak load" staffing?
∗ Why don't all systems use SSM?

High Performance Systems

* What are "posting plans"?

High Performance Systems

* What are some reasons to select one staff configuration over another?
* Which is best?

High Performance Systems

* What does this model do for:
  – Money?
  – Personnel (hierarchy, satisfaction)?
  – Equipment?
  – Other?

High Performance Systems

* What does the current literature say about the efficacy of such systems?

Vehicles

* What is KKK-A-1822?

Vehicles – example

* 3.7.1.1 WARNING INDICATORS.
* The electrical system shall incorporate a warning light panel located in the driver's compartment. It shall provide indicator lights for showing: open patient compartment entry door(s) (see 3.10.8); open equipment compartment door(s); and when batteries are turned on by the battery disconnect switch (when furnished) (see 3.7.7). The "Door Open" warning lights shall be red, flash, and approximately 13 mm (1/2 in.) in diameter, or equal, in area. The battery indicator light shall be green with a lens approximately 13 mm (1/2 in.) in diameter, or equal, in area. Electronic displays that are visible in all ambient light, …..

Vehicles – example

* http://www.gsa.gov/cm_attachments/GSA_PUBLICATIONS/ambulanc_1_R2AV1-aD_0Z5RDZ-i34K-pR.pdf

Vehicles – example

* Specifications for "types"
  – Type 1
    * Not very economical
    * Very stable
    * Lots of storage space

Vehicles – example

* Specifications for "types"
  – Type 2
    * Van is very economical but not very stable
    * Little storage space

Vehicles – example

* Specifications for "types"
  – Type 3
    * Modified van is economical and *relatively* stable

Vehicles – example

* Larger vehicles not covered
    * Not very economical
    * Very stable
    * Lots of storage space

Mobile Intensive Care(MIC) Unit

Vehicles – example

* Air Medical
    * Allows for rapid transport
    * Wide call area
    * High profile "billboard"

Vehicles – example

* Air Medical
  – Not very economical
  – Increased training (safety and environmental considerations)