### Data Mining

# Hitting the Mother Load with Competing Hospitals

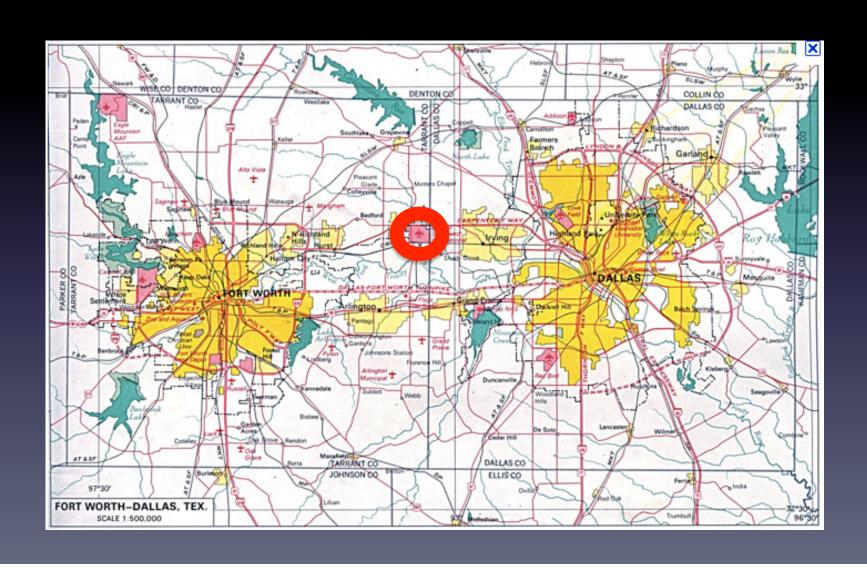


Jeff Beeson, DO, EMT-P, FACEP

**Medical Director** 

Fort Worth, Texas

### Fort Worth



# Daily Cattle Drive



# Barbeque













### MedStar

- EMS Established by City Ordinance
- Public Utility Model
- 15 Cities
- 421 Square Miles
- 880,000 Population



### MedStar

- 100,000 EMS Calls/Year
- 52 Ambulances
  - System Status Management
  - EMT/Paramedic
- \$27 million
  - No Government Subsidy

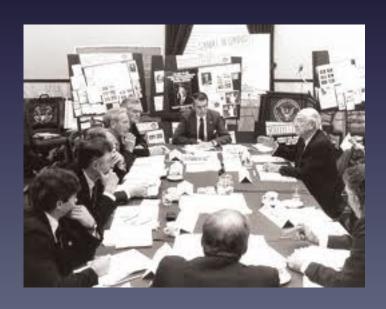


# Emergency Physician's Advisory Board

- Established by City Ordinance
- Directs Clinical Care of MedStar
- Board Composition
  - Emergency Department Directors
  - Trauma Directors
  - Medical Society Appointees

# EMS in Healthcare System

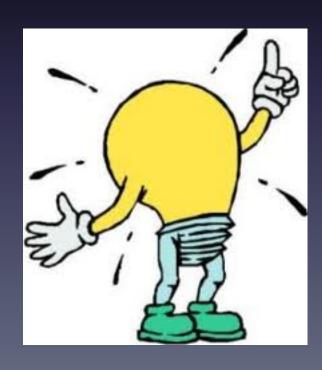
- National Organizations
- Physician's Board
- Medical Societies
- Hospital Councils



# Why Do They Need Us?

### EMS Data Uses

- Quality Improvement
- Staffing
- Supplies
- Hospital Issues
  - Nursing Home Transfers



# Texas State Health and Safety Code 241.153. Subsection C

allows hospitals to share information with EMS services for the purposes of quality improvement, medical audit, and competency assurance without written authorization from the patient.

### Chest Pain Center

- Accrediting Body
- Certification
- EMS Involvement
- Data Sharing
- Cardiac Committee



### Quality Improvement

- Transport Review
  - Emergency Call to Dispatch
  - On Scene to Electrocardiogram
  - Recognition to Activation
  - Transport Mode

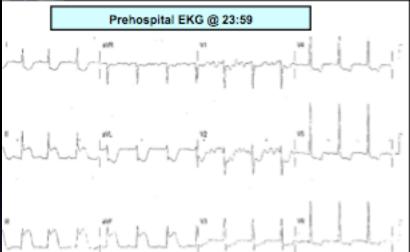
## Quality Improvement

- Hospital Review
  - Emergency Department Delays
    - Activation Times
    - In Department Times
  - Intervention Laboratory Times
  - Outcomes



October 31, 2011

ED: Dr. DeMoor Card: Dr. Kumar





50 year old male arrived via MedStar c/o chest pain/SOB x 2 hours. PMH HTN, smoker.

23:59 - EMS EKG STEMI recognized

(Aspirin given by EMS-no run sheet found for time)

00:02 - STEMI Alert activated by Dr. DeMoor

00:08 - Arrival to ED

00:12 - Initial EKG done in ED

00:26 - Call Team arrival

00:57 - PCI to 100% RCA

#### Staff Involved:

ED

Charlotte Towler Heather Gilliam Erinn Murrell Cath Lab

Joel Sherwood Jim Westerhoff Charissa Lobb

Door to ED ECG: 4 min.

ECG signed to STEMI Alert: 3 min.

STEMI Alert to Cath Lab Arrival: 24 min.
Pt Arrival in lab to Device Deployment: 17 min.

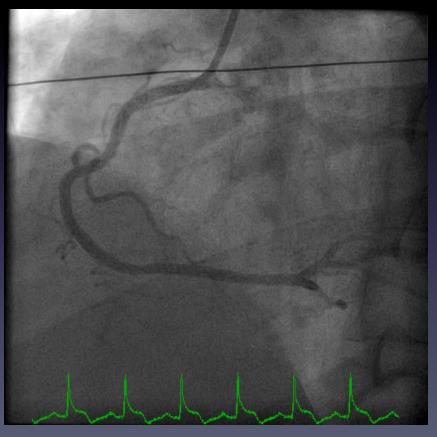
Total D2B: 49 min.

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#### 100% Prox RCA Lesion Aspiration, Balloon, and Stent x 1

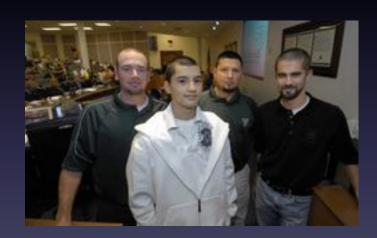
Before After





### Similar Feedback

- Acute Stroke
- Trauma
- Sepsis Alert
- Interesting Cases
  - Monthly Grand Rounds



# Current Data Mining

- Frequent Users
- Community Patients
- Mental Health
- Health Record Exchange
- Open Access to EHR



### EMS is NOT Aviation



EMS is
Only and Always
about
Patient Care

# ThankYou