Memphis Fire Department

- Approximately 1,900 personnel
  - 350+ Medics
  - 1500+ EMTs
- 62 Stations
- 60 Engines
- 27 Truck Companies
- 36 ALS Ambulances
- 3 Heavy Squads
- Sponsoring Agency for USAR Tennessee Task Force 1
Demographics

- Annual Call Volume 120,000 runs
- Stemis 2600
- CVA/TIA 1000
- Cardiac Arrests 750
Tweaking the STEMI System

- Changes to both Pre- and In-hospital systems to obtain maximum patient benefit

- Nov 2009….met 90 minute window for D-B

- Consistently met since that time
Prehospital Tweaks

Pre-Hospital
Activation of STEMI Call Team
(Cardiology and Cath Lab Staff) from
EMS ECG

12 Lead Obtained before Other interventions

Utilization of Pit Crew Concept for STEMI
Hospital Tweaks

Arrival in CPC: (rolling stop only)
Paramedic gives report to all receiving team members (ERMD, CPC RN, CATH Lab) to prevent need for repetitive handoff

EMT-IV gives Patient Information to Admissions/Registration, as paramedic gives report
No support testing done in the CPC - defer to cath lab (Lab work, no CXR unless Dissection suspected)

Cardiology/Cath Lab:
Lab drawn with sheath placement and handed off for ISTAT lab results

Cath altered with intervention to indicated vessel initially, then completion of remainder of cath
Results

- 911 activation to Balloon  64 minutes
- EMS FMC to Balloon      54 minutes
- Door to Balloon          38 minutes

*Dec 2011-present
Widespread Implementation of Automated CPR

- Moved from all Manual CPR to automated over 6 month period
- Compared ROSC rates
- No other changes during study period
- Preliminary data
Widespread Implementation of Automated CPR

- Phased Implementation of Lucas Device
  - All Manual CPR: 13.8% ROSC
  - 50% penetration with Lucas: 23.9% ROSC