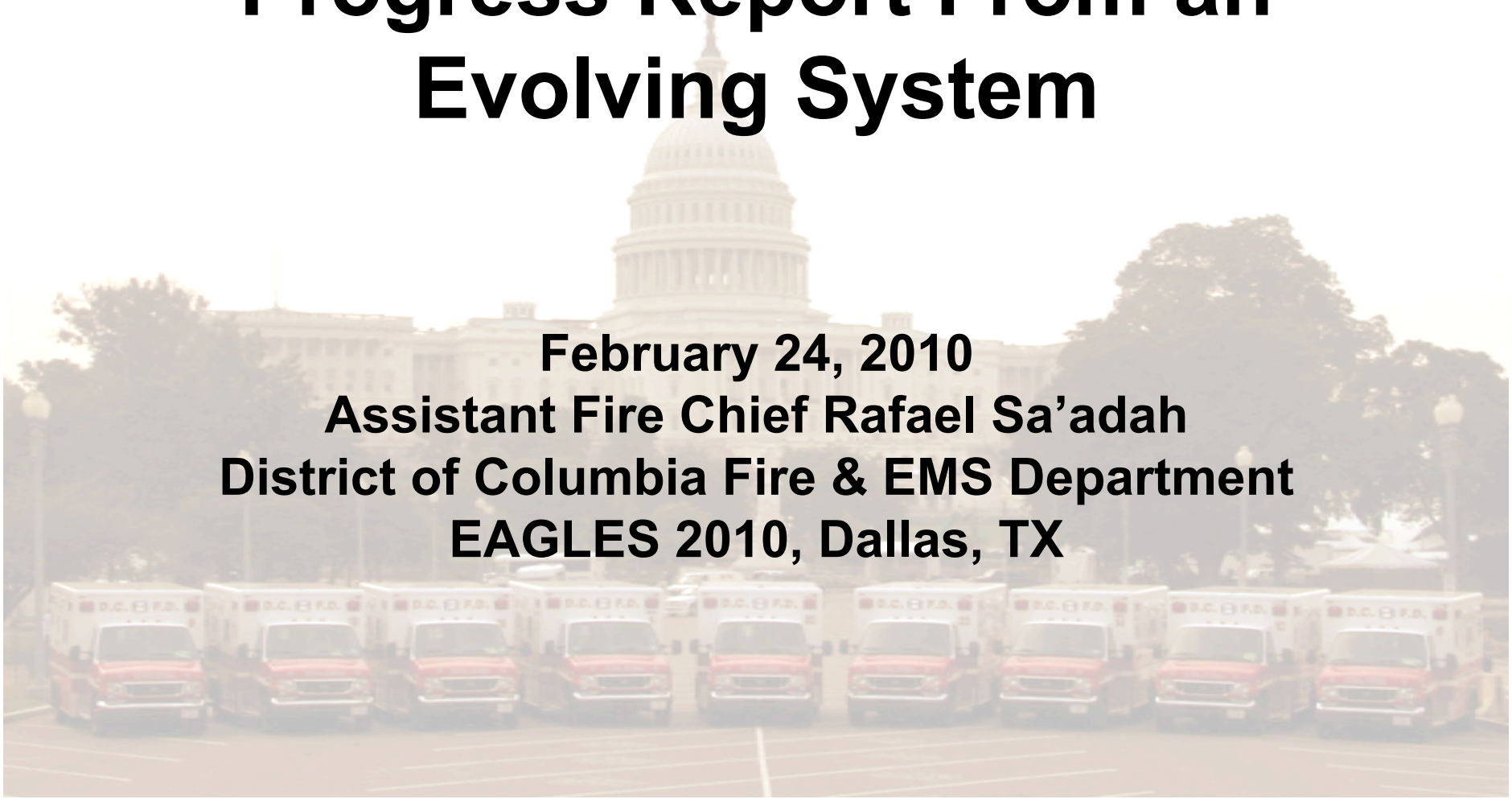
EMS in the Nation's Capital: Progress Report From an Evolving System



February 24, 2010
Assistant Fire Chief Rafael Sa'adah
District of Columbia Fire & EMS Department
EAGLES 2010, Dallas, TX

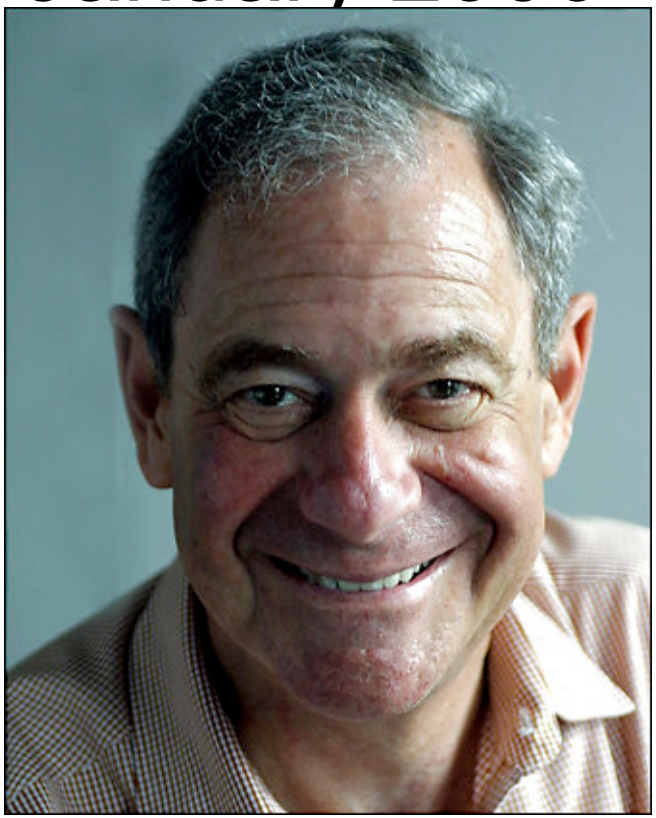

D.C. F.D.

EMS in DC: a Progress Report

Our objectives:

- Discuss the catalyzing events that led to the formation of the Mayor's Task Force on Emergency Medical Services
- Present the recommendations of the Task Force and discuss how DC Fire & EMS is implementing them
- Report on results

Catalyzing Event:
The David Rosenbaum Case
January 2006



OIG Conclusion

Multiple failures during a single evening by District agency and Howard [University Hospital] employees… suggest an impaired work ethic that must be addressed before it becomes pervasive. Apathy, indifference, and complacency… undermined the effective, efficient, and high quality delivery of emergency services expected from those entrusted with providing care to those who are ill and injured.

New Leadership: 2007

Mayor Adrian M. Fenty and Fire & EMS Chief Dennis L. Rubin

Mayor Fenty Announces the District's Settlement With the Rosenbaum Family

March 8, 2007:

- At the tree planted in Northwest Washington to memorialize New York Times journalist David E. Rosenbaum, Mayor Adrian M. Fenty announced that the city has reached a settlement agreement with the Rosenbaum family.

Terms of the settlement

The settlement requires:

The creation of a task force that will investigate the circumstances surrounding the response of the Districts Fire and Emergency Medical Services.

The members of the task force will be agreed to by the family and the District of Columbia government, and will include representatives of the District government, the family, and outside experts in emergency medical services.

The case against the District of Columbia will be dismissed without prejudice and will automatically be dismissed with prejudice in one year unless the family moves to reinstitute the case, which they may do at their discretion if they are not satisfied with the District's implementation of the task force recommendations.

In the meantime: Ongoing Management Reform Process

"EMS: The Path Forward"

- Weekly management meeting at FEMS HQ chaired by the Chief
- Systemic review of entire EMS System to identify and rapidly implement solutions
- Mandatory attendance for all senior staff
- Both unions invited to the meetings

Fire/EMS Chief and Medical Director's Pledge:

"To provide committed, focused leadership to enable the District of Columbia Fire and Emergency Medical Services Department to **restore public trust and exceed community expectations**. DCFEMS will strive to set new industry benchmarks for high-quality, responsive Emergency Medical Services."

The Task Force on Emergency Medical Services issued its *Report and Recommendations* on September 27, 2007

Task Force on Emergency Medical Services

Report and Recommendations

District of Columbia

Adrian M. Fenty, Mayor
September 27, 2007

Implementation of the Mayor's EMS Task Force recommendations

Six major recommendations

1 The Department of Fire and Emergency Medical Services shall transition to a fully integrated, all hazards agency

2 Reform Department structure to elevate and strengthen the EMS mission.

3 Improve the level of compassionate, professional, clinically competent patient care through enhanced training and education, performance evaluation, quality assurance, and employee qualifications and discipline.

4 Enhance responsiveness and crew readiness by revising deployment and staffing procedures.

5 Reduce misuse of EMS and delays in patient transfers.

6 Strengthen Department of Health (DOH) oversight of emergency medical services.

Tracking and Progress:

- CapStat sessions scheduled twice a year, with Task Force members invited to observe

- DC Fire & EMS established a website to allow any interested person to monitor the District's progress in implementing the Task Force recommendations

Example:

EMS Task Force Recommendation 5:

Reduce misuse of EMS and delays in patient transfers.

Status	Action Item	Progress
	Action Item 5 (b) The Chief, in cooperation with other District agencies, shall develop and implement, no later than **March 31, 2008**, a public education program regarding appropriate use of the 911 system.	FEMS has updated the "Make the Right Call" campaign and is partnering with the Office of Unified Communications to distribute new material to all District households on the proper use of 911 and 311.

Progress narratives contain hyperlinks to evidence of the accomplishment

“Make the Right Call”
(Recommendation 5b: Public education campaign)

Resources *Recursos*

Non-Emergencies 311
Casos de no-emergencia

Unity Health Clinics *Clínicas Médicas*

Anacostia	202-610-7160
Brentwood Square	202-832-8818
Congress Heights	202-279-1800
East of the River	202-388-7890
Good Hope Road	202-610-7280
Hunt Place	202-388-8160
Mary Center	202-545-6600
Southwest	202-548-4520
Stanton Road	202-889-3754
Upper Cardozo	202-745-4300
Woodridge	202-281-1160
Walker-Jones	202-354-1120

Baby Healthline *Línea de atención para consultas médicas sobre infantes*	(800) MOM-BABY
Immunization for Children *Inmunización infantil (vacunas)*	(202) 576-7130
Poison Control *Control de intoxicaciones*	(800) 222-1222
DC HealthCare Alliance	(866) 842-2810

DC Government Agencies *Agencias Gubernamentales de DC*

Department of Health *Departamento de Salud*	(202) 671-5000
Department of Human Services *Departamento de Servicios Humanos*	(202) 671-4200
Department of Mental Health *Departamento de Salud Mental*	(202) 673-7440
Office on Aging *Oficina de Envejecimiento*	(202) 724-5622

District of Columbia Fire and Emergency
Medical Services Department
1923 Vermont Avenue, NW
Washington, DC 20001

Make the Right Call

When to Call 911

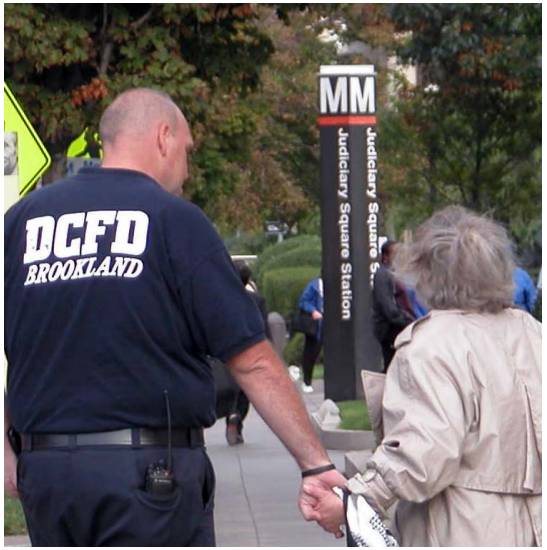
Haga la Llamada Correcta

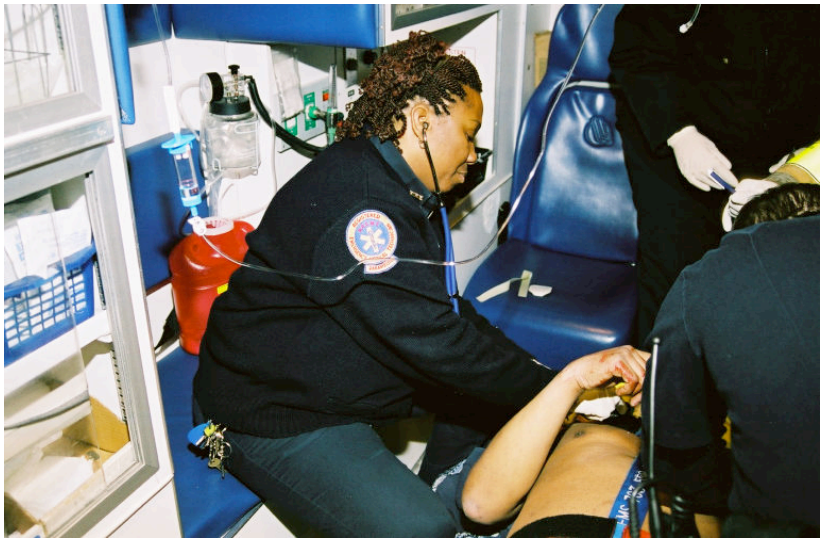
Cuándo Llamar al 911

Dennis L. Rubin
Fire Chief

Adrian M. Fenty
Mayor

Progress Report





Family to End Litigation Over Journalist's Death

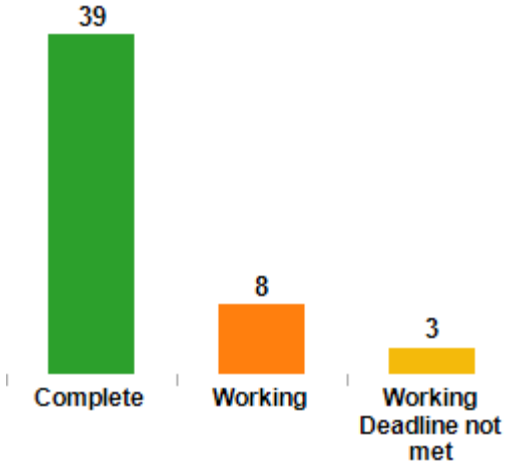
Improvements in Care Cited at News Conference

Washington Post, Friday, February 22, 2008

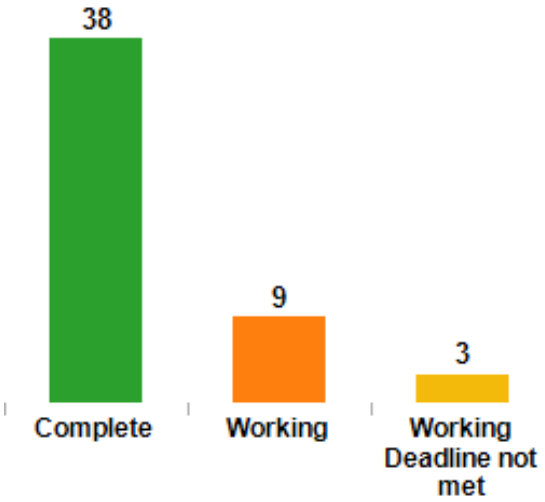
- The family of a slain journalist…said yesterday that **the city has made significant improvements over the past year.**
- David E. Rosenbaum's relatives… agreed last year to forgo a lawsuit against the D.C. government as long as reforms were made, said they were satisfied with the city's efforts so far and that they will end the litigation.
- **"We believe the city has thus far lived up to its side of the bargain, and we will live up to ours,"** said Marcus Rosenbaum, David Rosenbaum's brother, speaking at a news conference with Mayor Adrian M. Fenty.

EMS Task Force Recommendations

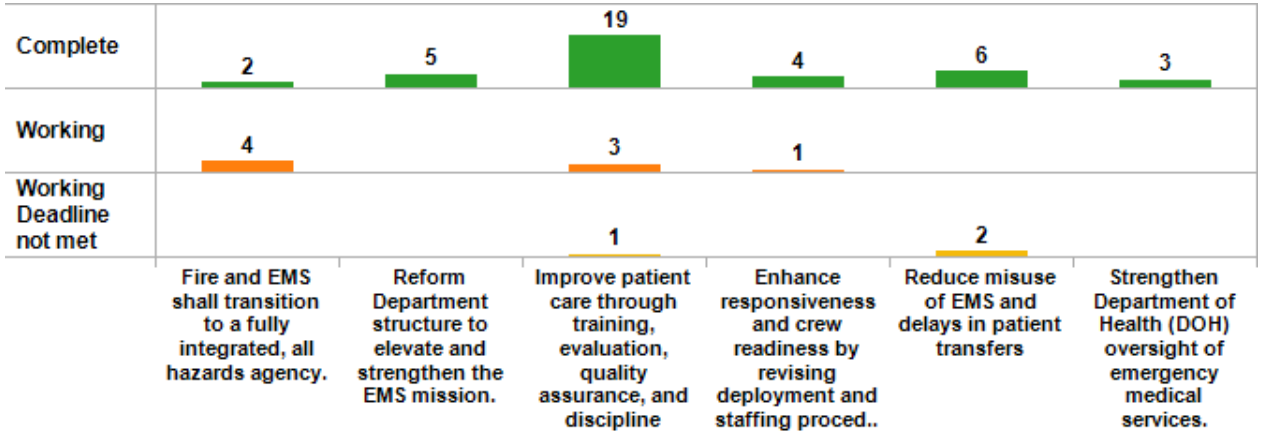
Status Summary



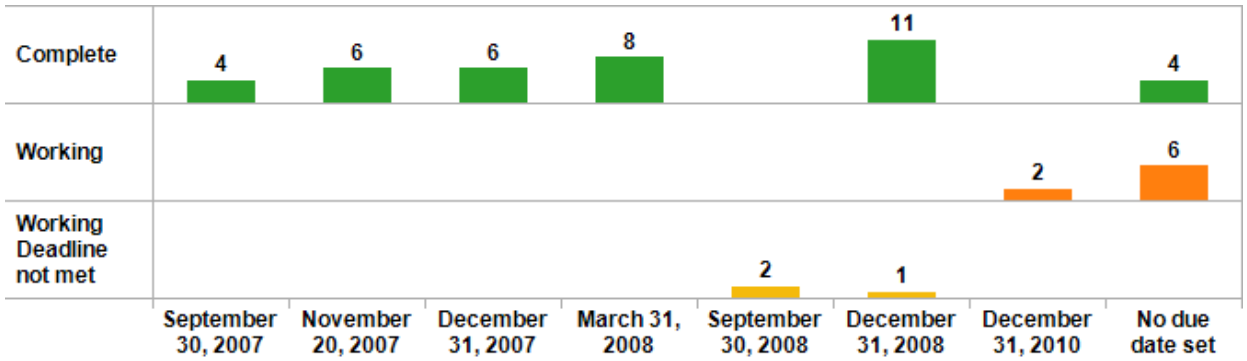
Previous Summary



Status by Major Recommendation

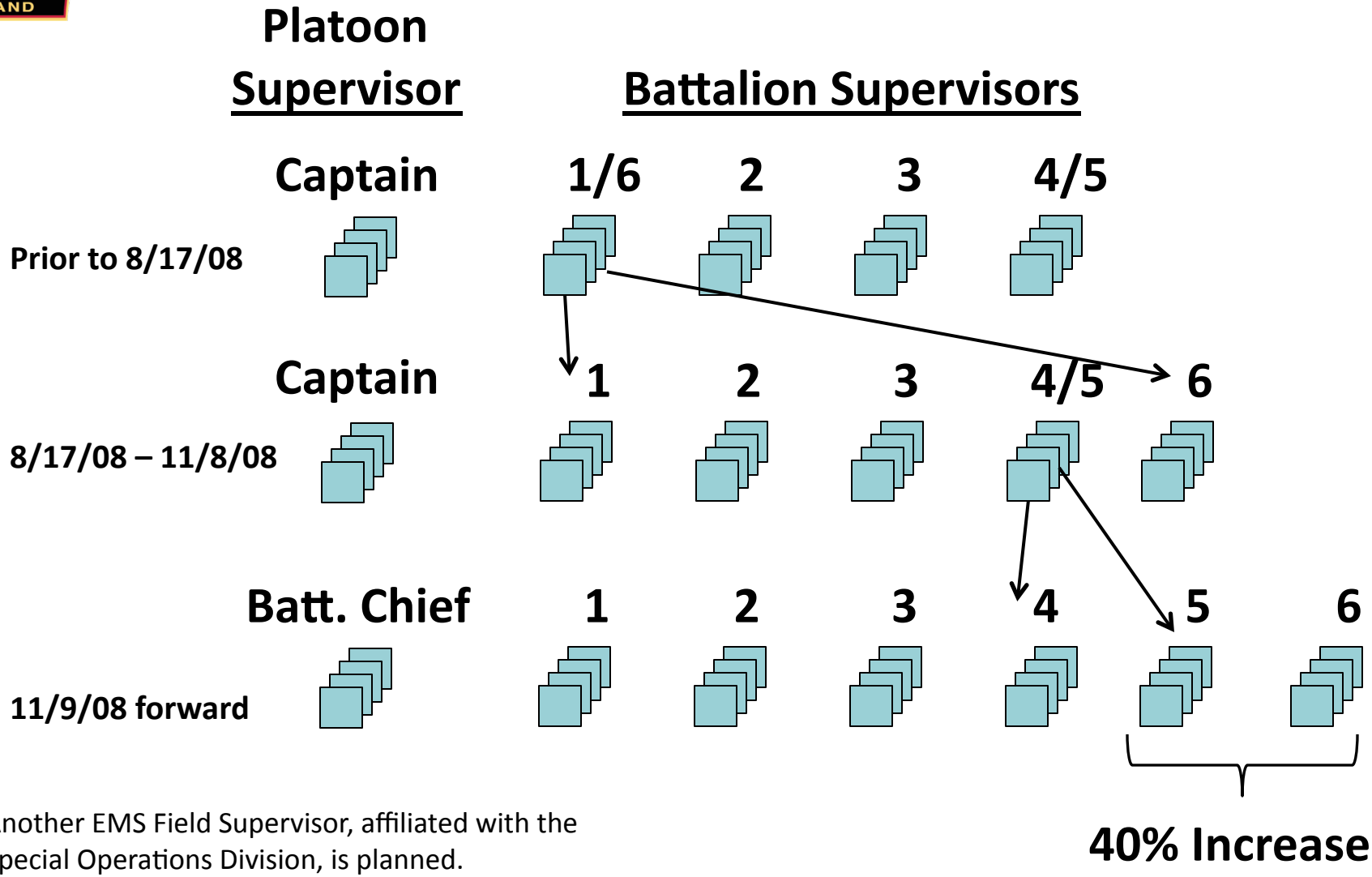


Status by Due Date



Source: DC Fire & EMS. For details, visit http://fems.dc.gov/fems/cwp/view,a,3,Q,642526.,femsNav,|31511|.asp

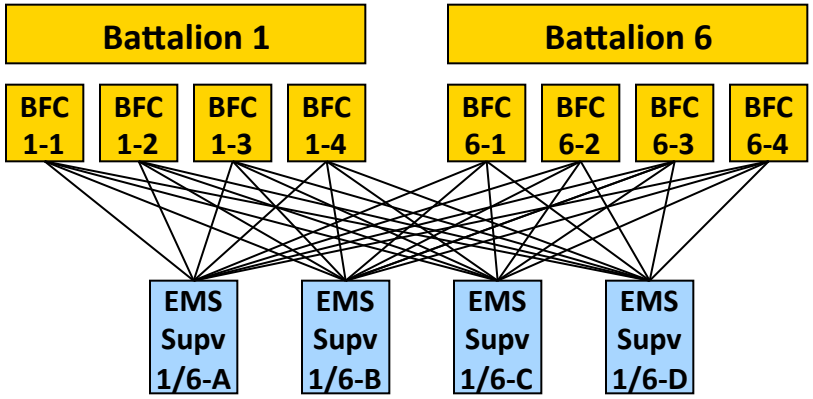
EMS Supervision Improvements



Another EMS Field Supervisor, affiliated with the Special Operations Division, is planned.

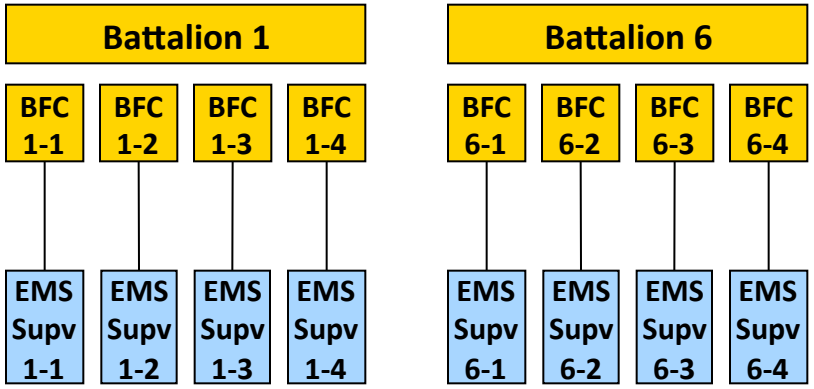
EMS Supervision Improvements

Old Way



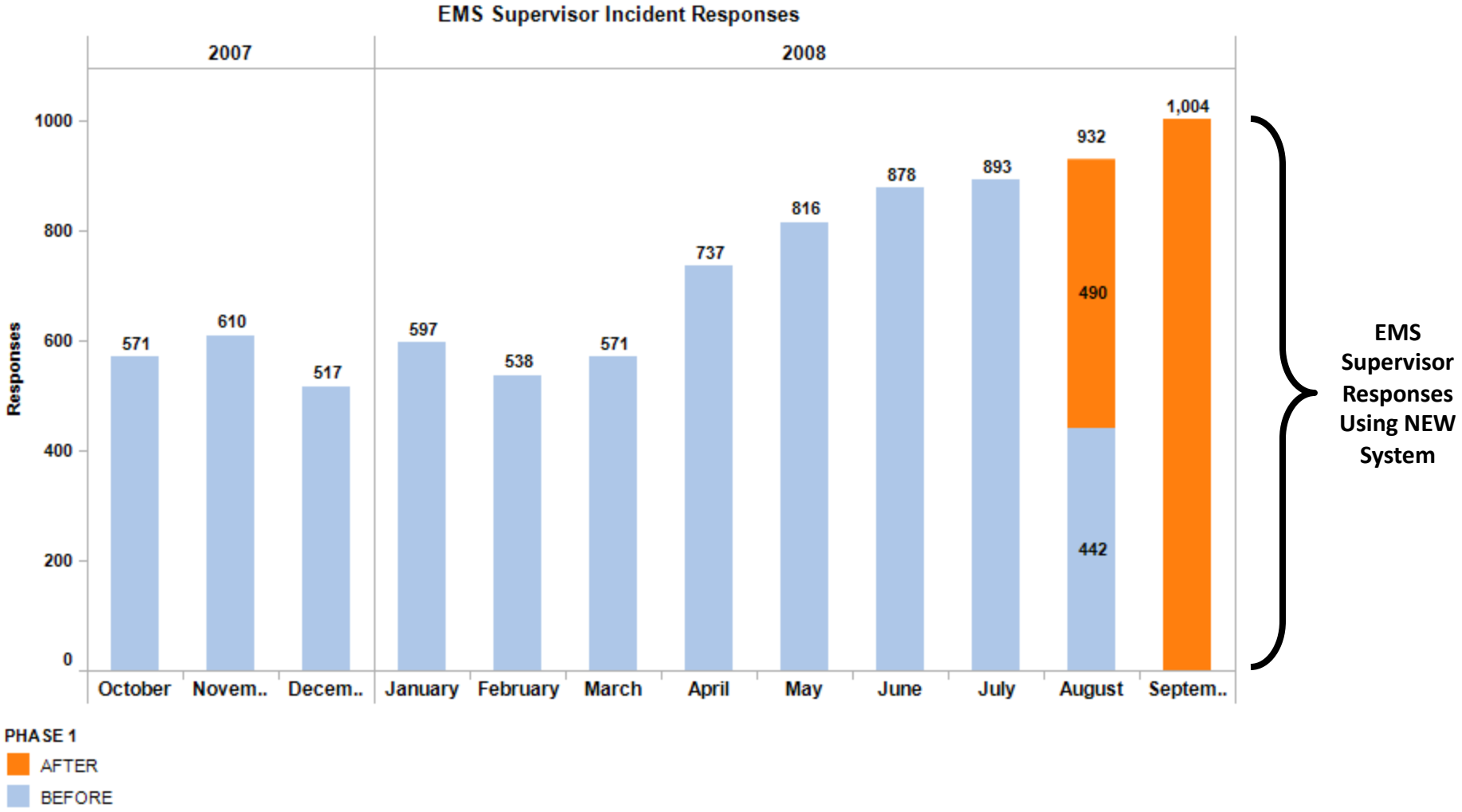
- EMS supervisors shared across two battalions
- EMS supervisors on different shift schedule from battalion fire chiefs

New Way



- Each EMS supervisor dedicated to a specific battalion and platoon
- EMS supervisors on same shift schedule as battalion fire chiefs and majority of personnel to be evaluated

EMS Supervision Improvements



Training and QA – National Registry

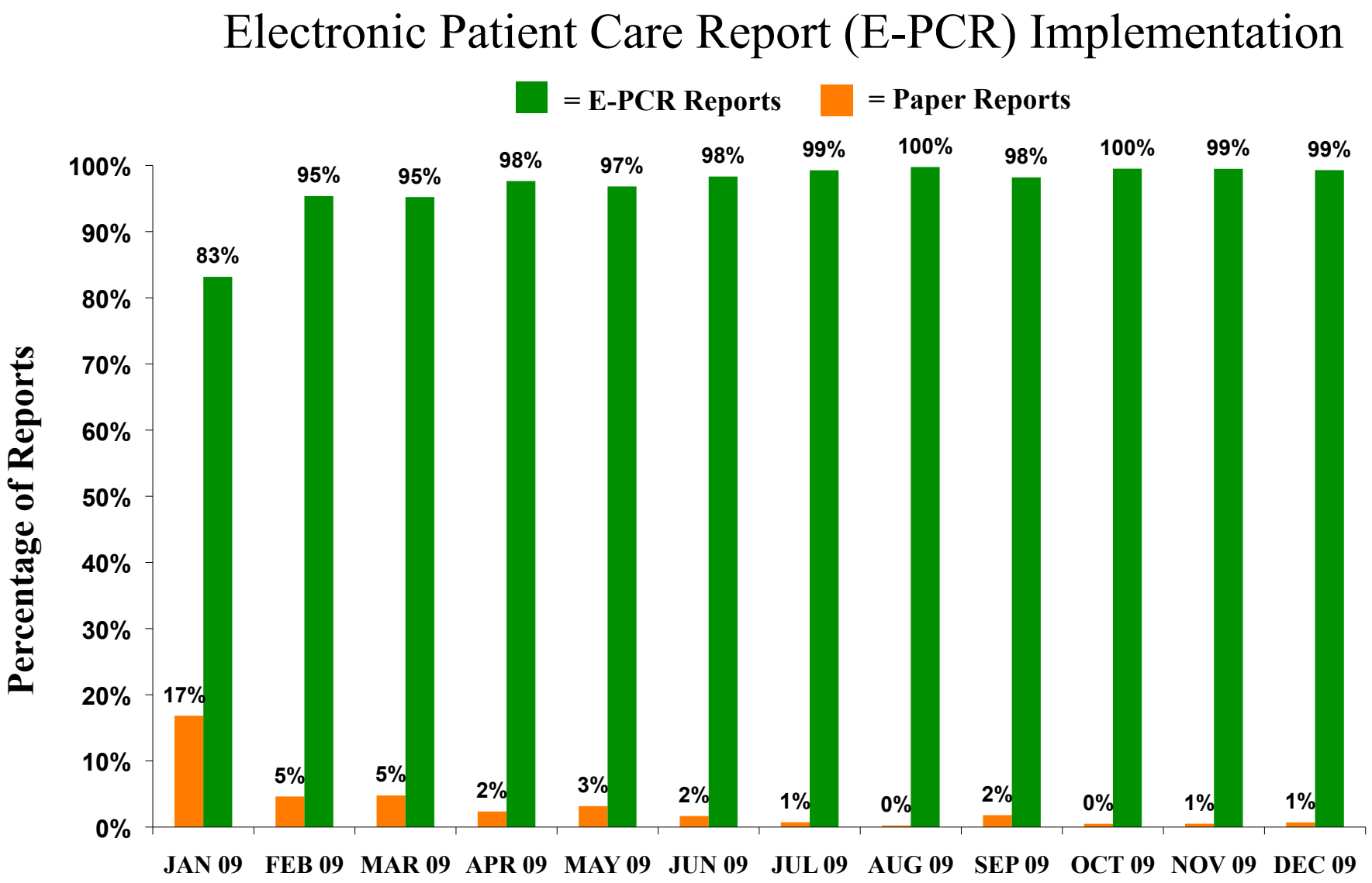
National Registry Implementation:

83% of the operational workforce (1,645 out of 1,988 personnel) is now certified by the National Registry.

	Total	NR Cert	% NR Cert
EMT-P	237	234	98.7%
EMT-I	38	38	100.0%
EMT-B	1,625	1,373	84.5%
Non-EMT	88	0	0.0%
Total	**1,988**	**1,645**	**82.7%**

Projected completion date is February, 2011

Foundation of QA – E-PCRs



Training and QA – Quality Review Process

Phase I (current) QA Monitoring Plan with E-PCRs

- E-PCRs are used as a source of general QA monitoring through an E-PCR audit database tool
- Hospital and other medical quality complaints incorporated into QA monitoring process
- QA management level review by EMS supervisors, Nurse Consultant and Medical Director, depending on case complexity and requirements
- Performance is improved by identifying when intervention is needed, creating an improvement plan, implementing this plan and monitoring results, all at the individual employee level

Training and QA – Quality Review Process

Phase II (in progress) QA Monitoring Plan with E-PCRs

- Treatment protocols are identified as E-PCR reporting templates for a majority of patient complaints
- E-PCR application formulates protocol compliance questions during report completion individualized by patient
- E-PCR application identifies “compliance” or “exceptions” to protocol individualized by patient
- “Exceptions” are sub-categorized as “supported” or “not supported” based on patient requirements
- Quality assurance management focuses on “unsupported exceptions” and drives improvement planning
- Feedback continuously pushed to level of individual employee.

Training and QA – ALS/BLS Continuing Ed.

Independent paramedic assessment by MFRI completed September 2009

System-wide training resulting from the MFRI process:

- March 2009, all ALS providers completed an eight-hour course on recognition and treatment of acute coronary syndromes (ACS) and ST segment elevation myocardial infarction (STEMI).
- Any provider who failed to demonstrate proficiency upon completion of the eight-hour course was referred to two focused additional education and training courses (16 and 40 hours in length, respectively) that were delivered in August 2009. All personnel assigned to the courses have completed the training

Training and QA – Protocol Implementation

2010 Medical Treatment Protocol Revision

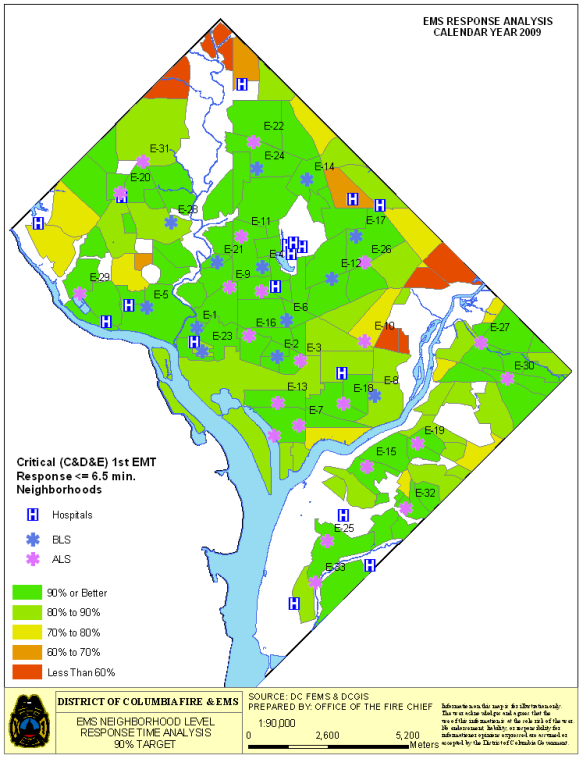
- First comprehensive revision of protocols in 8 years
- Incorporates latest evidence-based medicine and best practices from around the world
- Use of devices considered best practices like King Airway and CPAP
- New medications including controlled substances
- Protocol handout for review
- Agency-wide protocol training begins this week
- Target implementation date March 15, 2010.

Three elements:

- Operational Process (response times)
- Clinical Quality (care and outcomes)
- Customer Satisfaction

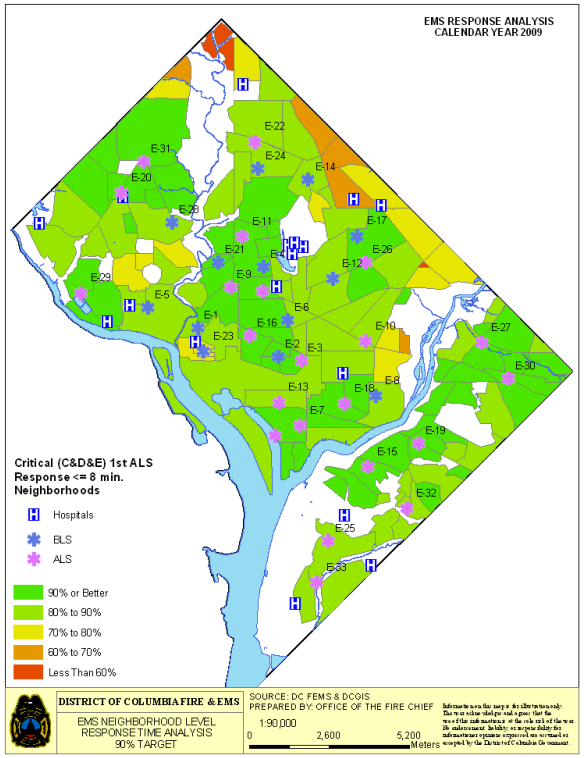
Measuring Performance – Response Times

First EMT on scene of critical medical calls within 6 ½ minutes of dispatch



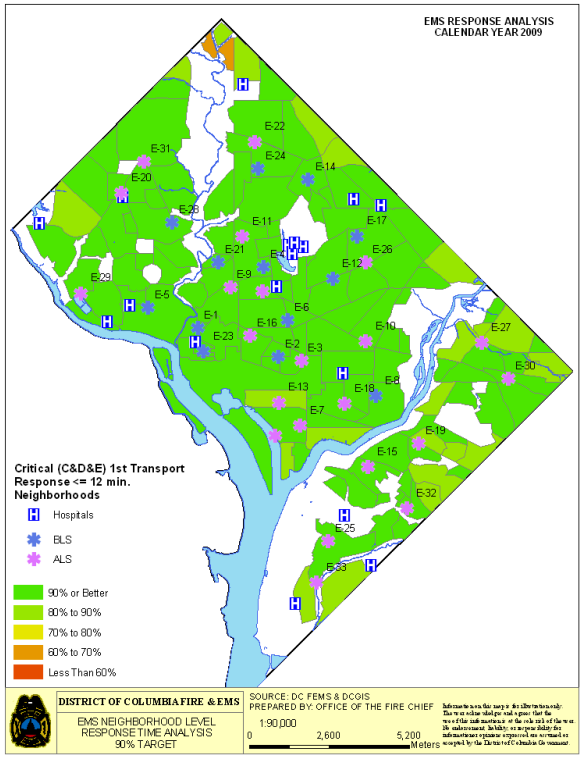
Citywide CY 2009
90.3%
Current average response time: 4:16

First ALS on scene of critical medical calls within 8 minutes of dispatch



Citywide CY 2009
88.4%
Current average response time: 5:16

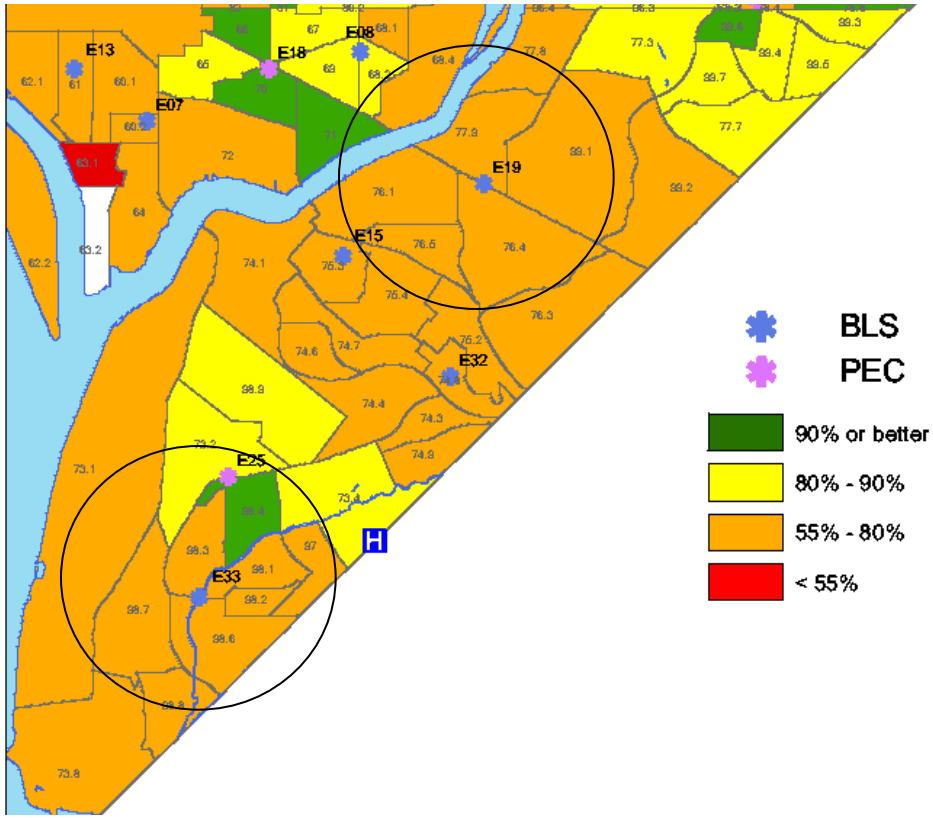
First Transport on scene of critical medical calls within 12 minutes of dispatch



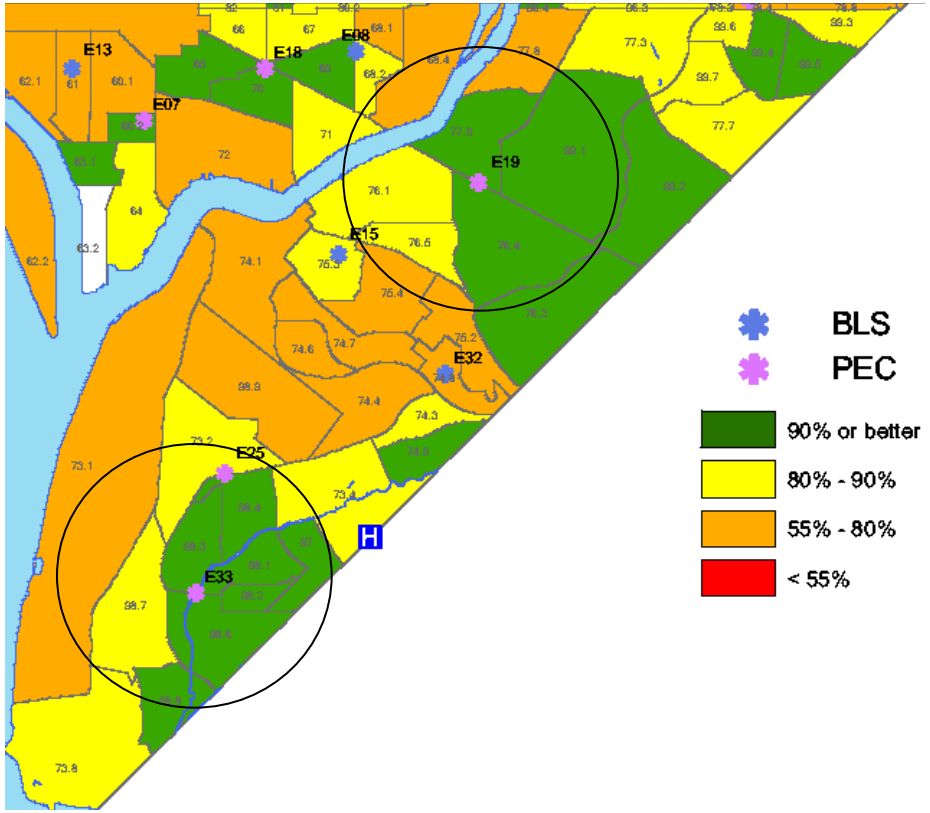
Citywide CY 2009
93.6%
Current average response time: 6:23

Solution:
Paramedic Engine Company (PEC)

Before PEC



After PEC



Engine 19 and Engine 33 began serving as PEC units during summer 2006. In the Census Tracts around the new PECs, the calls responded to in 8 minutes or less went from 73% to 92%.

Source: CAD data, FEMS analysis. Before: Oct 2005 to Apr 2006; After: Sep 2006. BLS = Basic Life Support unit

Measuring Performance – Care and Outcomes

Eagles Performance Measures

- STEMI
- Pulmonary Edema
- Asthma

CARES (Cardiac Arrest Registry to Enhance Survival) participation

Measuring Performance – Care and Outcomes

ST Elevation Myocardial Infarction (STEMI) – CY 2009

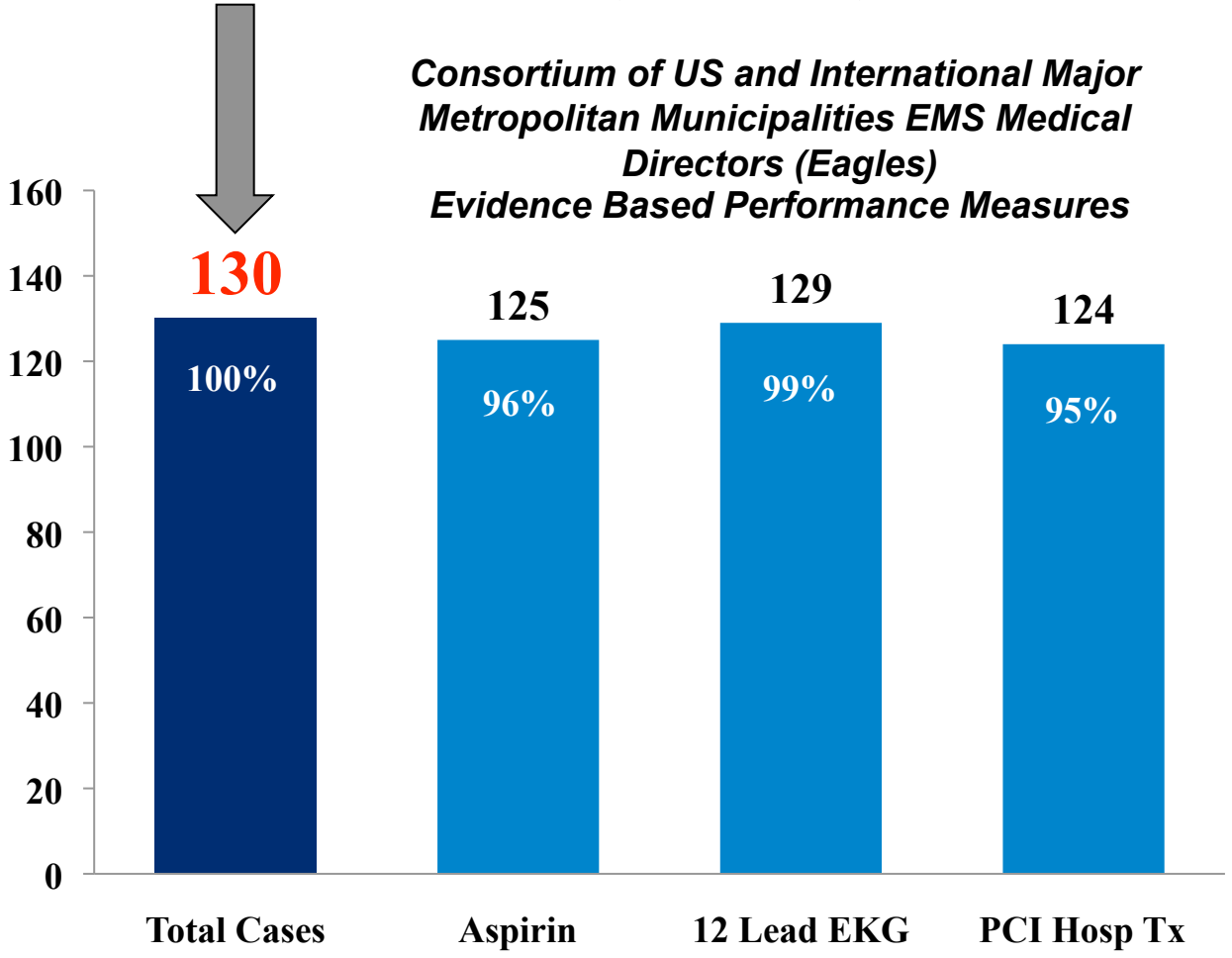
Eagles Measurements

- Aspirin
- 12 lead EKG
- PCI Hosp Tx

Not all patients receive all treatments.

Supported Exceptions

- Aspirin allergy
- Short transport time
- Hospital diversion



Source: Prehospital Emergency Care, April/June 2008, vol 12, no. 2, p. 141-151.

Measuring Performance – Care and Outcomes

Pulmonary Edema and CHF – CY 2009

Consortium of US and International Major Metropolitan Municipalities EMS Medical Directors (Eagles)
Evidence Based Performance Measures

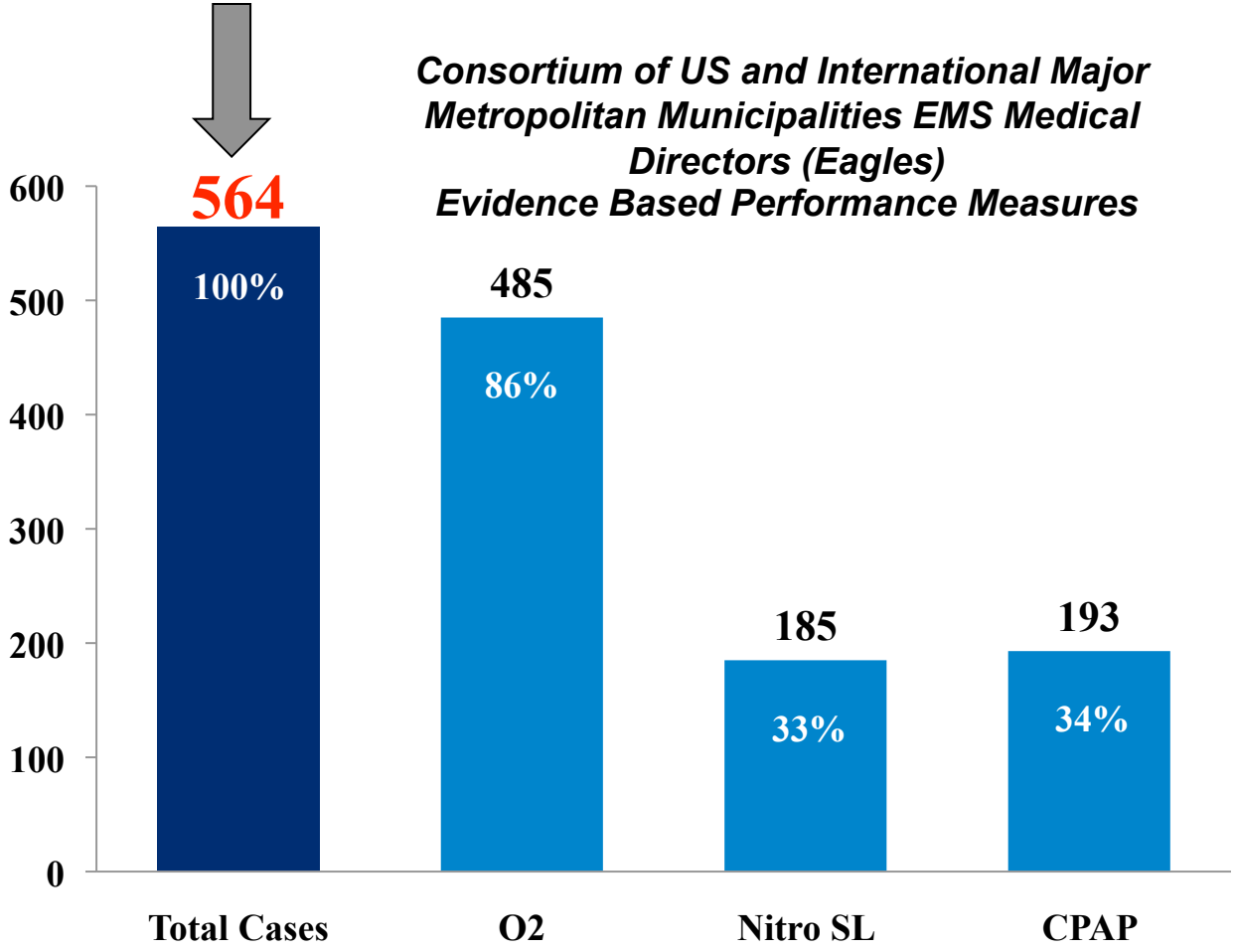
Eagles Measurements

- **Nitro SL**
- **CPAP**

Not all patients** receive **all treatments.

Supported Exceptions

- **Hypotension**
- **Previous Nitro**
- **Short transport time**
- **Chest pain absent**
- **Device tolerance**
- **ET intubation**



Source: Prehospital Emergency Care, April/June 2008, vol 12, no. 2, p. 141-151.

Measuring Performance – Care and Outcomes

Asthma – CY 2009

Consortium of US and International Major Metropolitan Municipalities EMS Medical Directors (Eagles)
Evidence Based Performance Measures

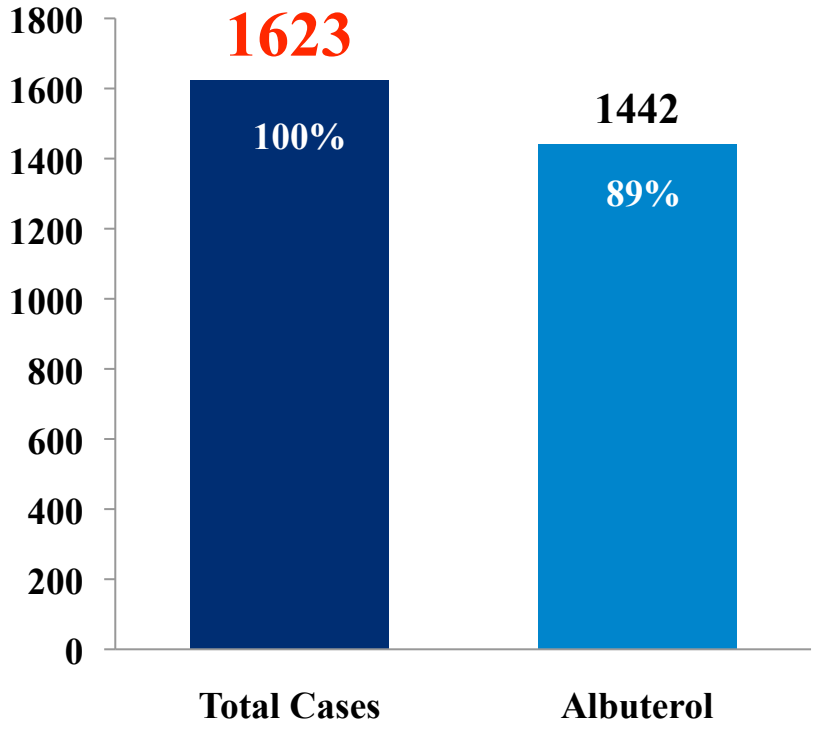
Eagles Measurements

- **Albuterol**

Not all patients receive all treatments.

Supported Exceptions

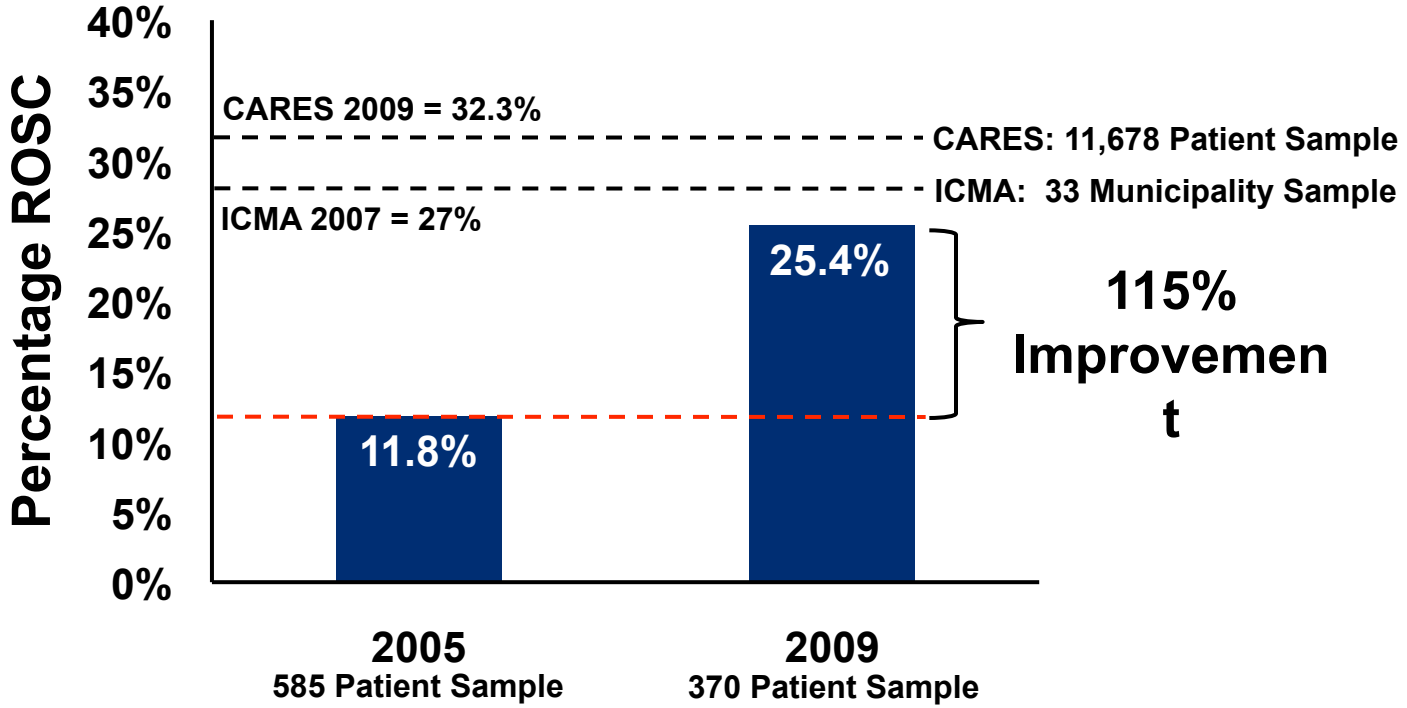
- **Patient self-medicated**
- **Maximum dosage**



Source: Prehospital Emergency Care, April/June 2008, vol 12, no. 2, p. 141-151.

Measuring Performance – Care and Outcomes

Cardiac Arrest Comparisons – 2005 and FY 2009



Survival to the Hospital by Cardiac Arrest Patients

Outcomes by Comparative Group using Pre-Hospital Return of Spontaneous Circulation (ROSC)

2005 District of Columbia Fire and Emergency Medical Services Department Cardiac Arrest Data

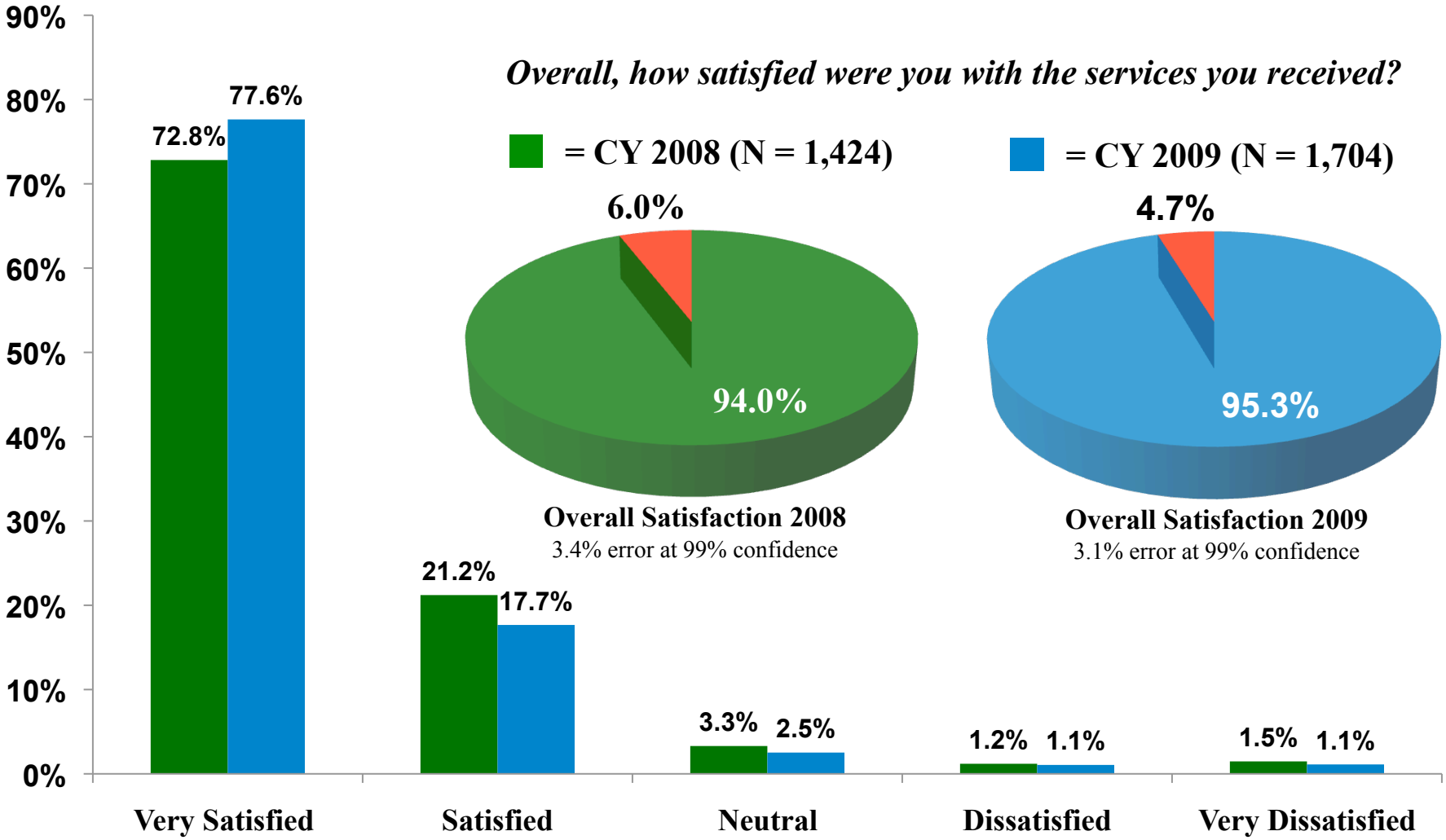
2009 District of Columbia Fire and Emergency Medical Services Department Cardiac Arrest Study

2008 International City and County Managers (ICMA) FY 2007 Performance Measure Report

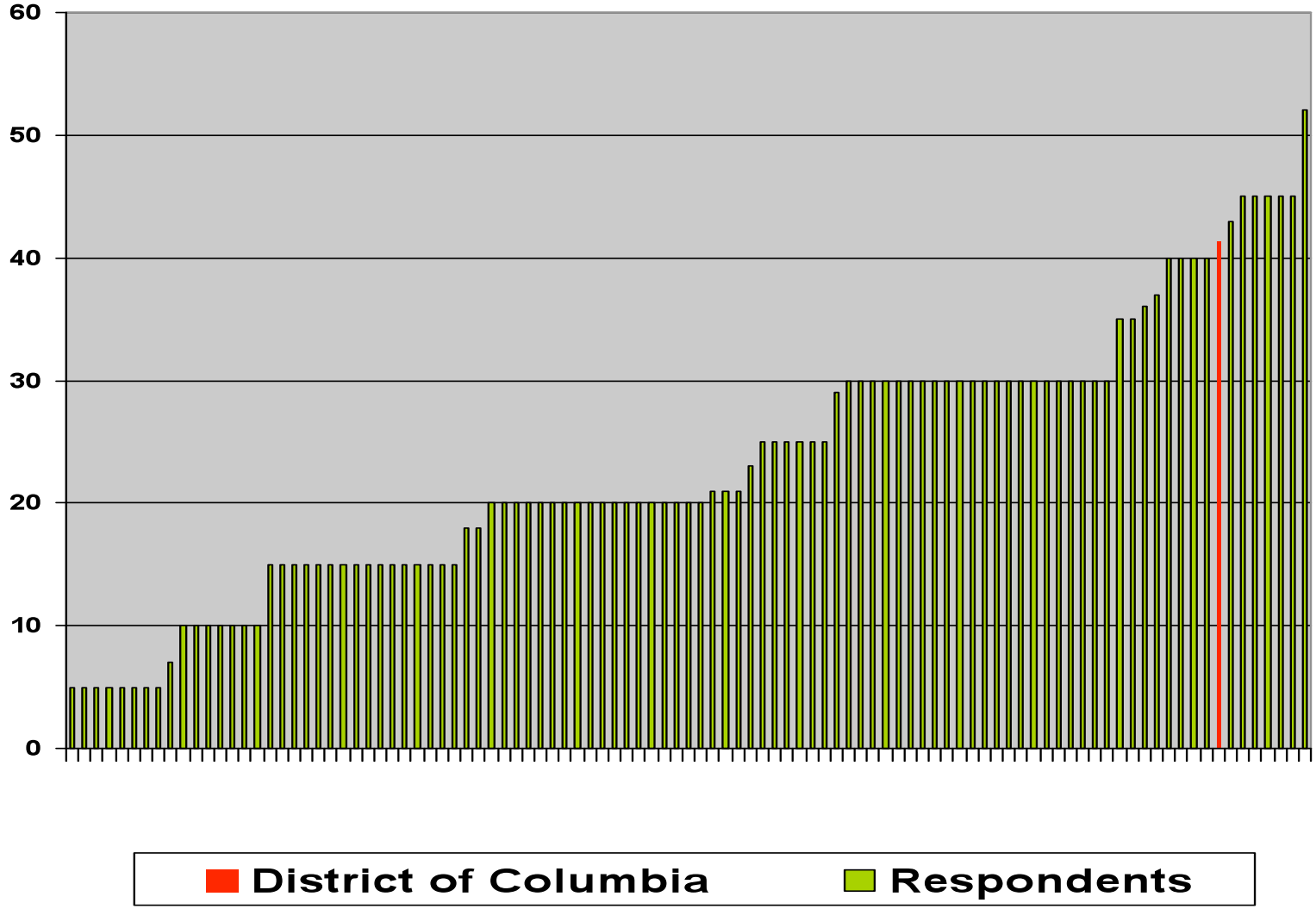
2009 Cardiac Arrest Registry to Enhance Survival (CARES) Utstein Survival Report

Measuring Performance – Customer Satisfaction

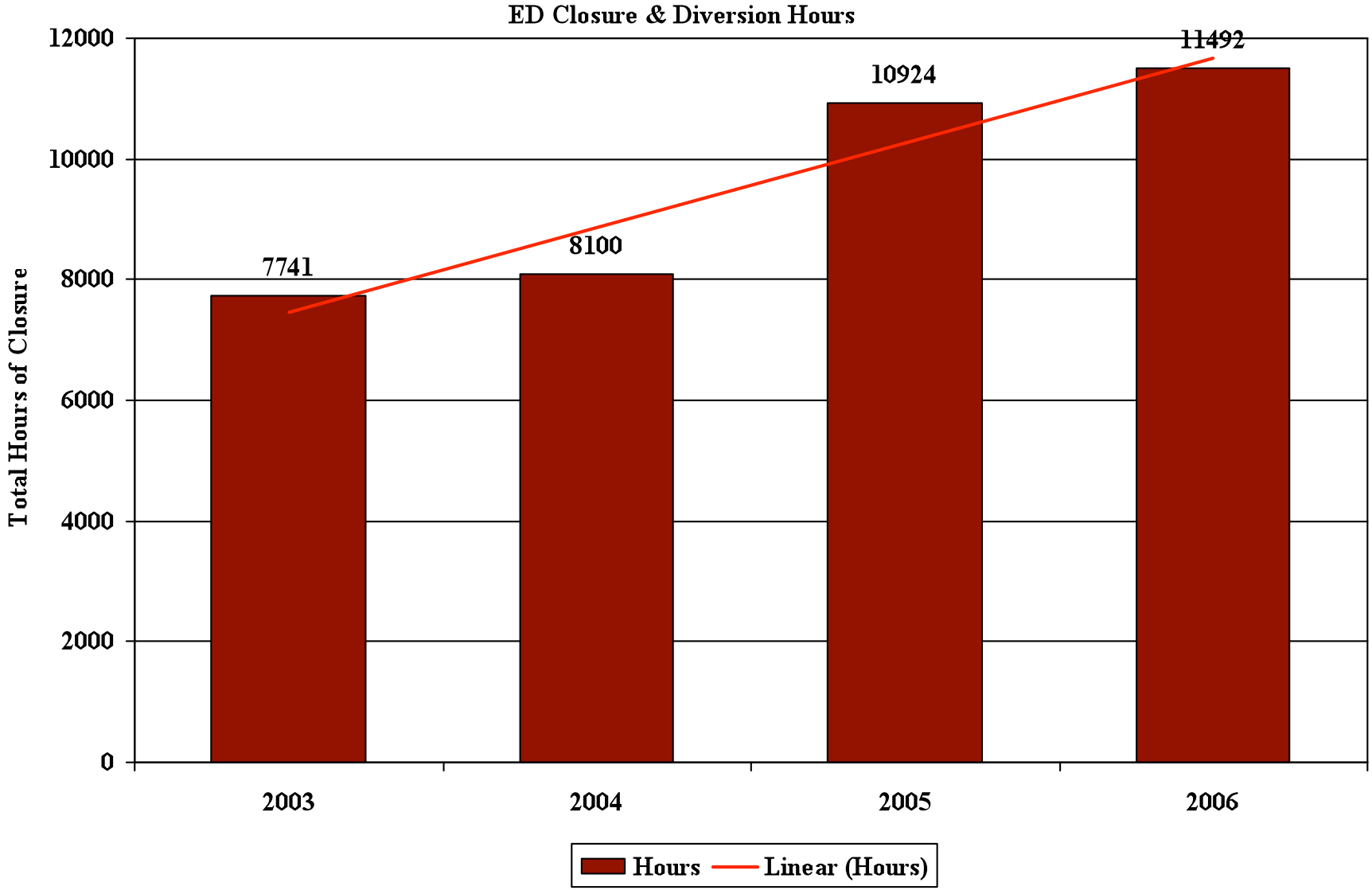
Customer Satisfaction Survey – CY 2008 and 2009



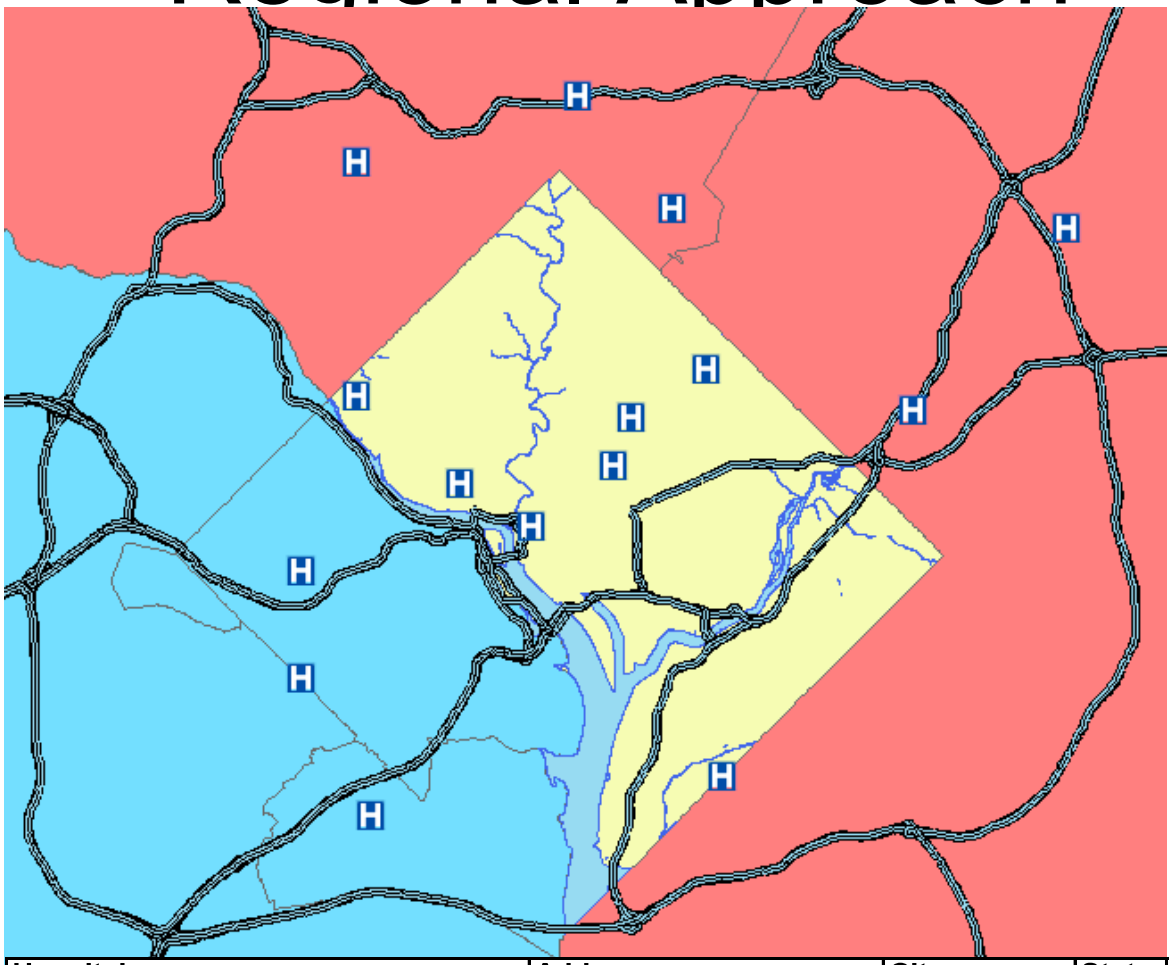
Comparison of Reported Wait Times of 100 Respondents from 200 Largest US Cities to Wait Times of District of Columbia



DC Hospital Closure Hours: CY2003 to CY2006



Receiving Facilities: A Regional Approach



Hospital	Address	City	State
Washington Adventist	7600 Carroll Ave	Takoma Park	MD
Prince Georges Hospital Center	3001 Hospital Dr	Cheverly	MD
Suburban Hospital	8600 Old Georgetown Rd	Bethesda	MD
Holy Cross Hospital	1500 Forest Glen Rd	Silver Spring	MD
Virginia Hospital Center	N George Mason Dr	Arlington	VA
Northern Virginia Community Hospital	Carlin Springs Rd	Arlington	VA
Inova Alexandria Hospital	Seminary Rd	Alexandria	VA

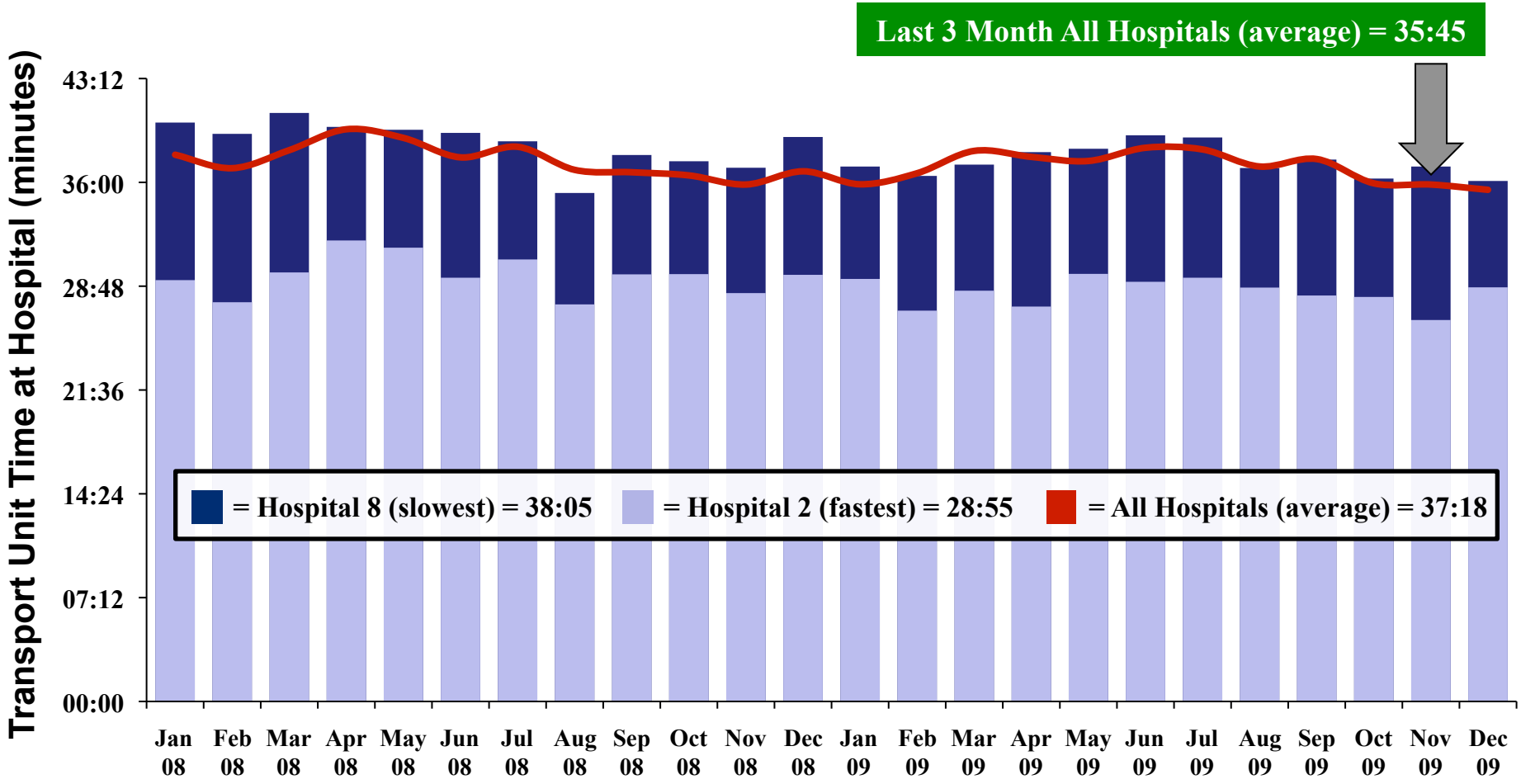
Strategies to reduce drop times, eliminate diversion

- “No Diversion” Program implemented 10/2009
- 2 full-time EMS liaison officers (ELO-paramedic supervisors) stationed at Office of Unified Communications
- All Transport Destination decisions now made centrally by the ELO’s

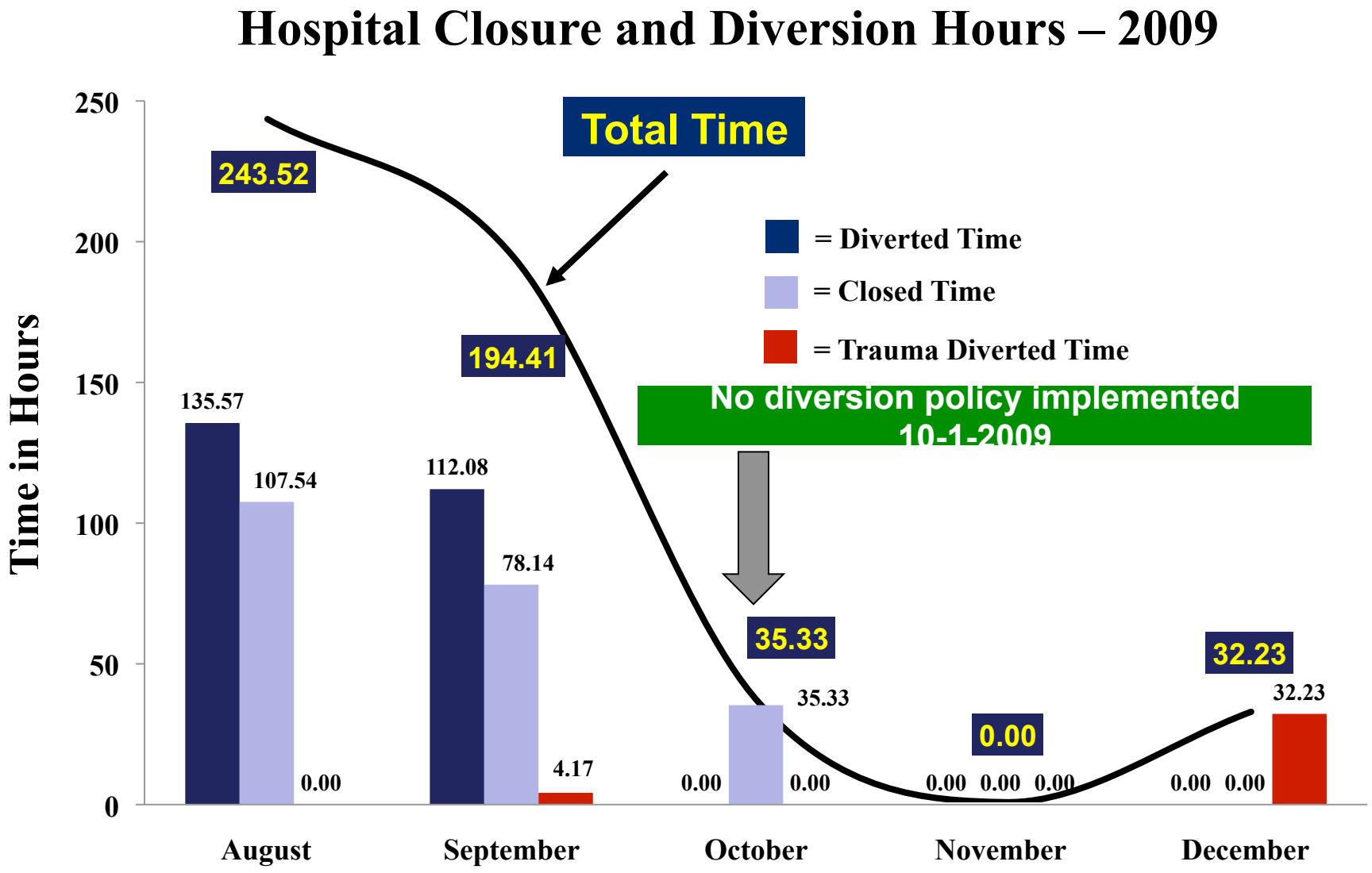
Monthly meetings (chaired by Medical Director and AFC/EMS) with Hospital Leadership Teams

Hospital Drop Times and Diversion

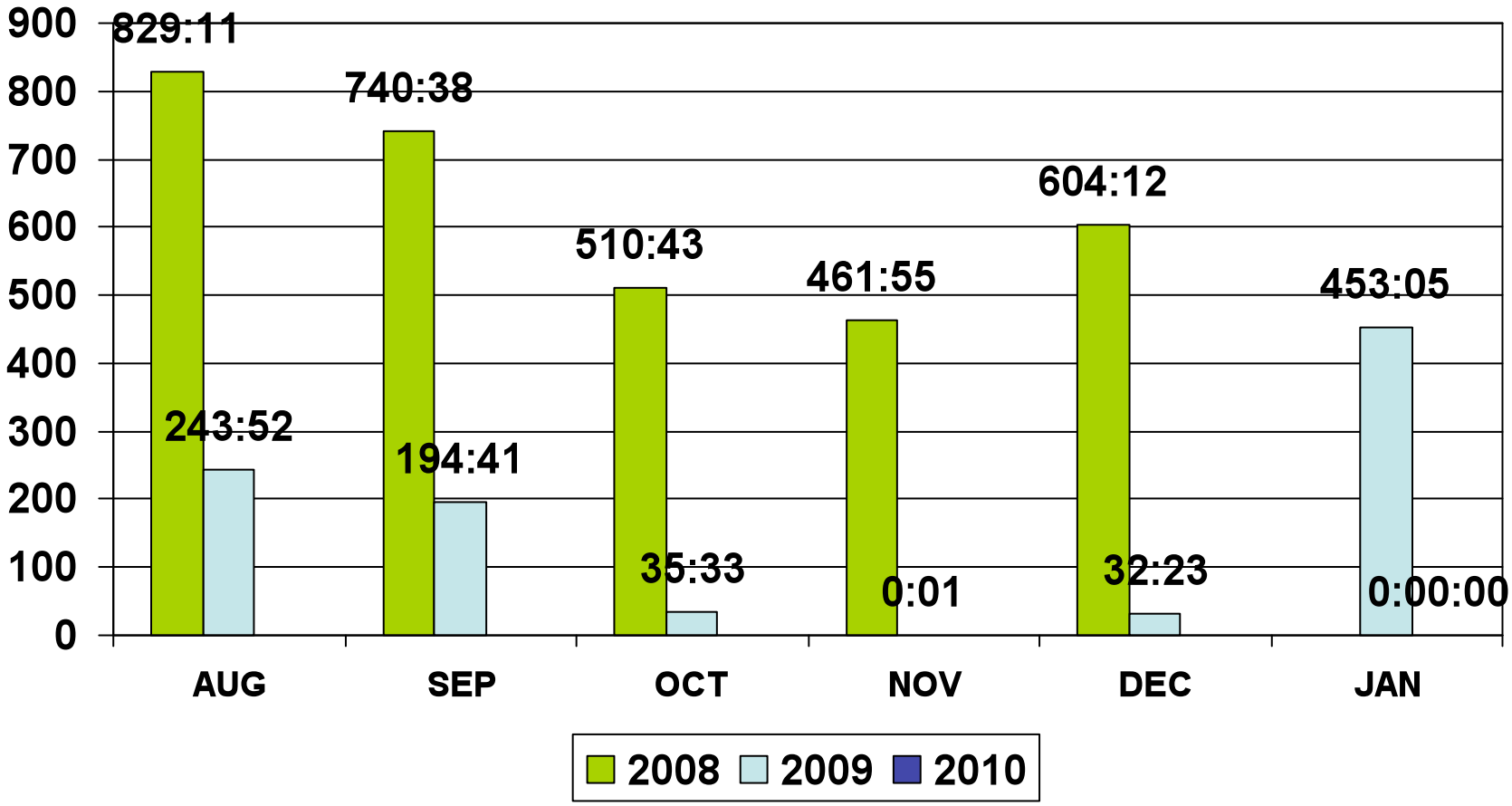
Average Hospital Drop Times – CY 2008 and 2009



Hospital Drop Times and Diversion



Total C&D by Month ’08 vs ‘09



Unification Update

Unification Milestones:

- All 32 incumbent EMS supervisors were transitioned to uniformed status on 8/2/09 and are undergoing all-hazards training
- 5 former single-role personnel were promoted into uniformed positions on 9/27/09 and are undergoing all-hazards training

12% of workforce still not unified:

- 158 remaining single-role personnel left in the agency (8% of workforce): 74 basic EMTs, 16 EMT-Intermediate, 68 EMT-paramedics
- 88 pre-1987 firefighters remain who are not yet certified as EMTs (4% of workforce)

Demand Management- Street Calls Program

Street Calls 1

- 1 Nurse Practitioner
- 1 Paramedic

Started April 2008

Street Calls 2

- 2 Paramedics

Started August 2008

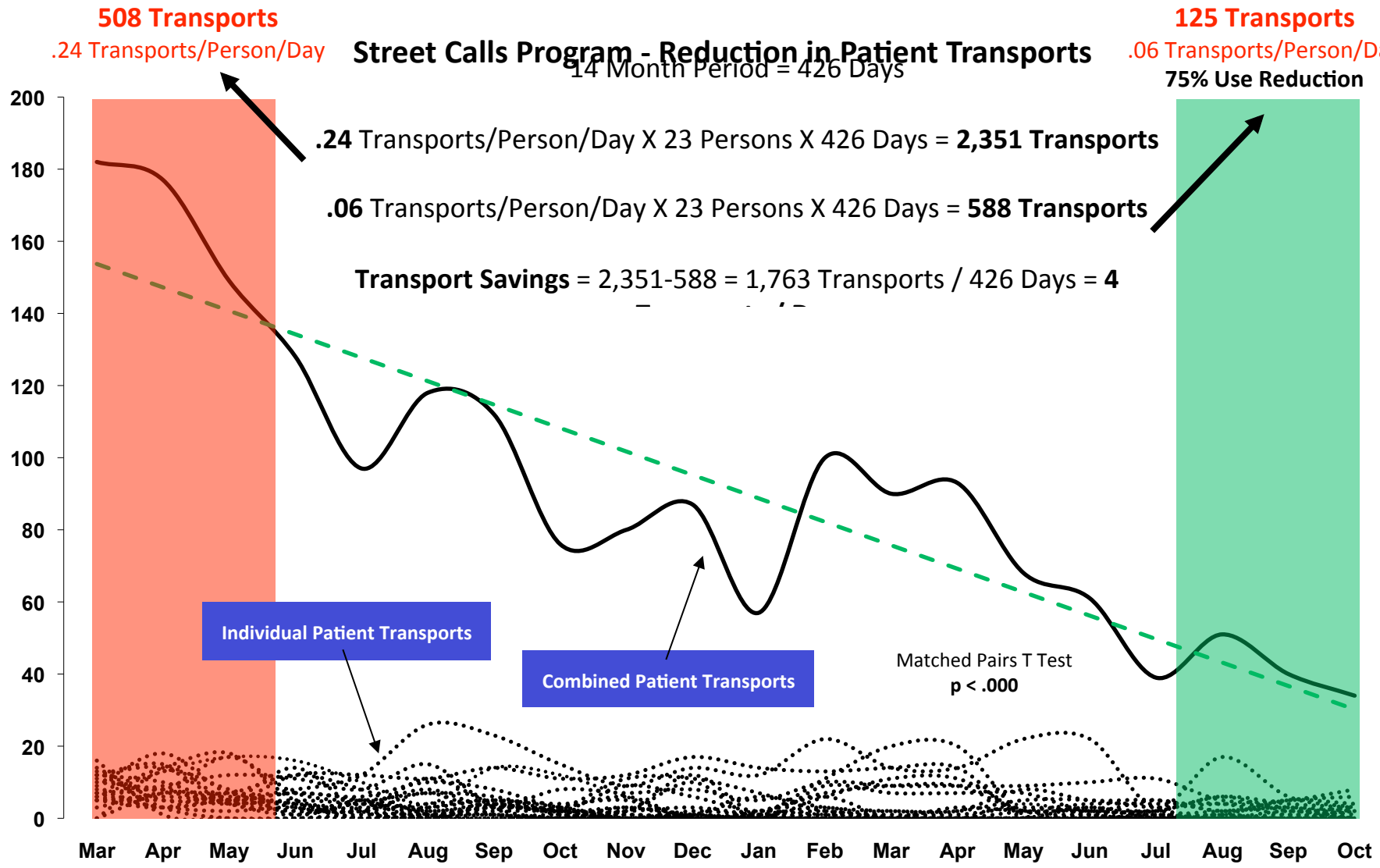
Population Reached

- 107 patients in database
- 63 with ongoing case management

Initial Impact

- 54% reduction in daily probability of transport
- Led to 375 fewer transports over 5 months for cohort of 25 chronic users

Demand Management – Street Calls



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Acknowledgements

- AFC/Medical Director Dr. Michael Williams, 2006—2008
- AFC/Medical Director Dr. James Augustine, 2008—2010
- Interim Medical Director Dr. Geoffrey Mountvarner, 2010

D.C. Fire & EMS Department Website

http://fems.dc.gov

Questions and Discussion