# Taking a Turn For The First: Taking Aim at Diversion Practices

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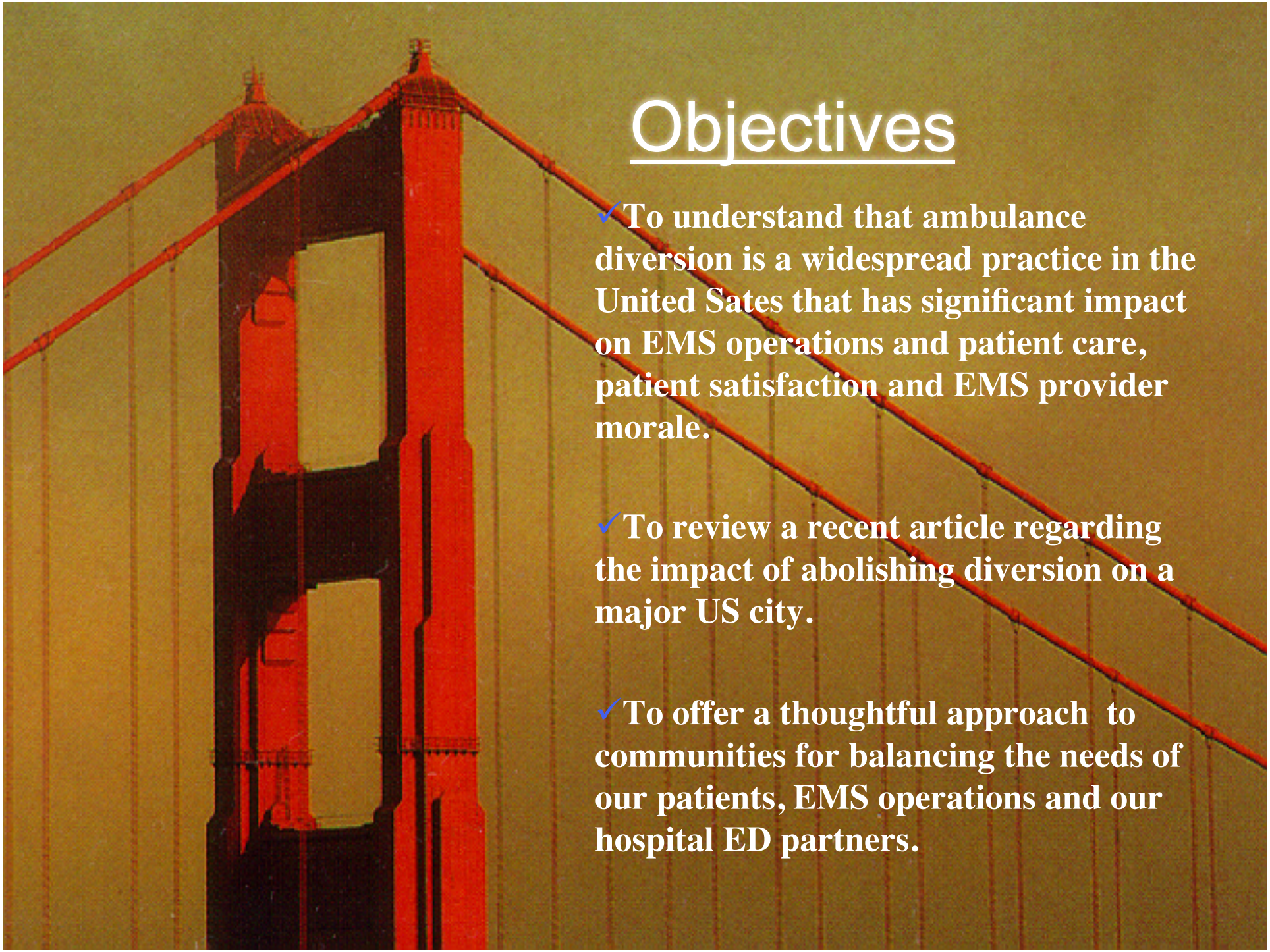
EAGLES XV
February 23, 2013



# Objectives

- ✓To understand that ambulance diversion is a widespread practice in the United Sates that has significant impact on EMS operations and patient care, patient satisfaction and EMS provider morale.

- ✓To review a recent article regarding the impact of abolishing diversion on a major US city.

- ✓To offer a thoughtful approach to communities for balancing the needs of our patients, EMS operations and our hospital ED partners.

# Scope of the Problem

It is estimated that between 40-50% of all US emergency departments routinely divert ambulances due to ED “overcrowding” or “resource overload”.

This means that roughly ½ a million ambulances each year are diverted from the destination hospital that was felt to be closest, most appropriate or the choice of the patient.


# Can Anyone Imagine EMS Deciding We Were Too Busy to Take On Any More Patients?

# The System Is Broken, Yet Some Inappropriately Believe That The Solution Lies With EMS

- We all know this wrong!
- The solution lies not with EMS, but rather, with our receiving hospital partners.
- Just like EMS responds to increases in volume, hospital emergency departments must have plans in place and both the willingness AND the ability to enact those plans when volume exceeds normally available resources.

# What is the Hesitation On the Part of Hospital ED's to Abolish Diversion?

The mistaken belief that without the ability to divert ambulance patients as they see fit, the ED will be overwhelmed with patients….


# The World As We Know It Will END!!!

# The Problem With This Logic

We all know that only 10-15% of all ED patients arrive via EMS!!!

So, if a hospital ED needs to close to EMS patients, they should already be in "disaster/ surge mode" and if need be should close to ALL patients, not just those being cared for by EMS.

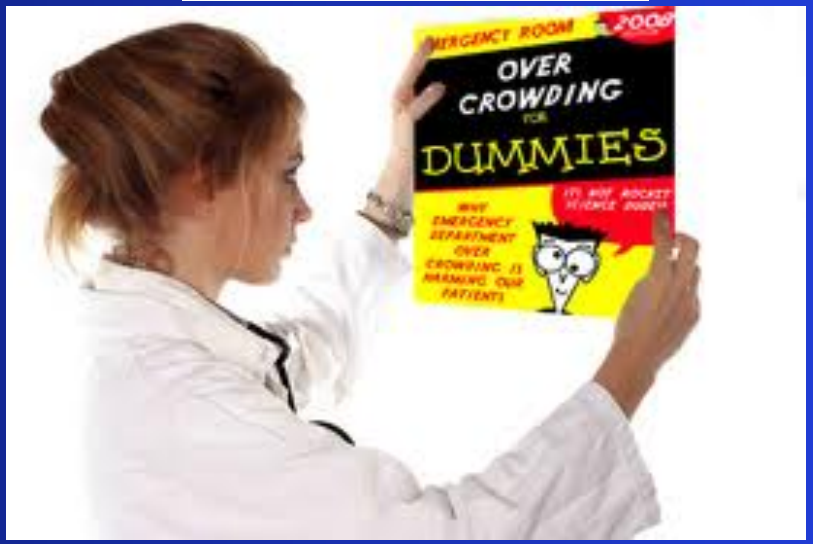
# Diversion Does Not Serve Anyone's Needs

-It negatively impacts EMS operations and could jeopardize our ability to respond to the next critical patient.

-It often results in patients being transported to ED's other than where their MD's or medical records are.

-It negatively impacts patient satisfaction and provider morale.

-It does little if anything to reduce ED overcrowding.

# Diversion Jeopardizes Our Patients

- The Institute of Medicine has concluded that "ambulance diversion can lead to catastrophic delays in treatment for seriously ill or injured patients. It also frequently leads to treatment in facilities with inadequate expertise and resources appropriate to the patient's severity of illness, placing the patient at significant risk."

# Can We Do Without Diversion?

**How do we convince hospitals that diverting ambulances is crazy?**

# Input/Output

The issue for ED's is not the rate of input of patients, but the rate of "throughput" and "output".

These are the areas that ED's should be focusing their efforts on, not diverting ambulance patients.

# The Effect of an Ambulance Diversion Ban on Emergency Department Length of Stay and Ambulance Turnaround Time

Laura G. Burke, MD, MPH; Nina Joyce, MPH; William E. Baker, MD; Paul D. Biddinger, MD; K. Sophia Dyer, MD; Franklin D. Friedman, MD, MS; Jason Imperato, MD, MBA; Alice King, MS, RN; Thomas M. Maciejko, EMT-P; Mark D. Pearlmutter, MD; Assaad Sayah, MD; Richard D. Zane, MD; Stephen K. Epstein, MD, MPP

**Study objective:** Massachusetts became the first state in the nation to ban ambulance diversion in 2009. It was feared that the diversion ban would lead to increased emergency department (ED) crowding and ambulance turnaround time. We seek to characterize the effect of a statewide ambulance diversion ban on ED length of stay and ambulance turnaround time at Boston-area EDs.

**Methods:** We conducted a retrospective, pre-post observational analysis of 9 Boston-area hospital EDs before and after the ban. We used ED length of stay as a proxy for ED crowding. We compared hospitals individually and in aggregate to determine any changes in ED length of stay for admitted and discharged patients, ED volume, and turnaround time.

**Results:** No ED experienced an increase in ED length of stay for admitted or discharged patients or ambulance turnaround time despite an increase in volume for several EDs. There was an overall 3.6% increase in ED volume in our sample, a 10.4-minute decrease in length of stay for admitted patients, and a 2.2-minute decrease in turnaround time. When we compared high- and low-diverting EDs separately, neither saw an increase in length of stay, and both saw a decrease in turnaround time.

**Conclusion:** After the first statewide ambulance diversion ban, there was no increase in ED length of stay or ambulance turnaround time at 9 Boston-area EDs. Several hospitals actually experienced improvements in these outcome measures. Our results suggest that the ban did not worsen ED crowding or ambulance availability at Boston-area hospitals. [Ann Emerg Med. 2012;xx:xxx.]

Please see page XX for the Editor's Capsule Summary of this article.

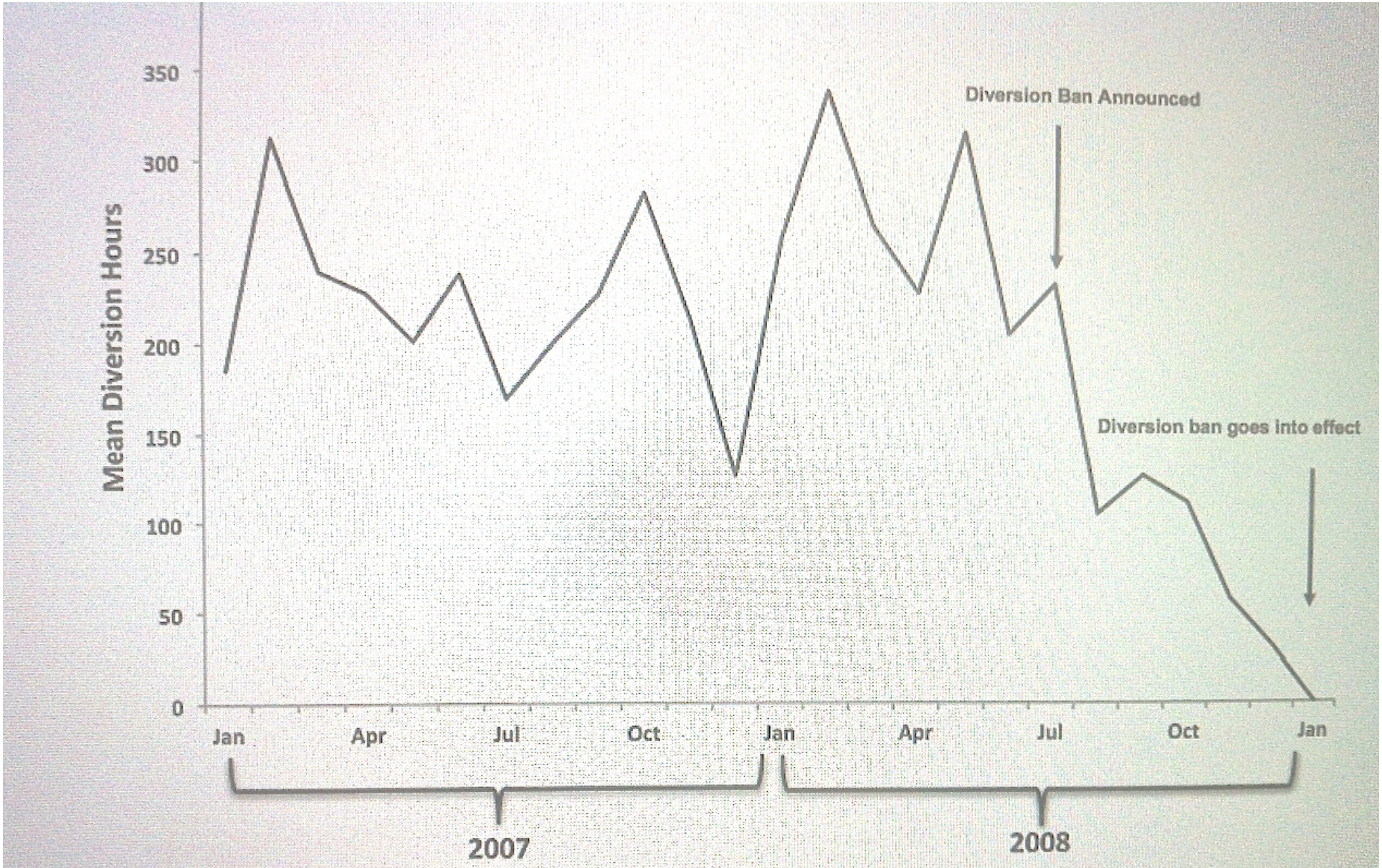



**Figure 3.** Total ED diversion hours per month for all study hospitals, January 2007 to January 2009.

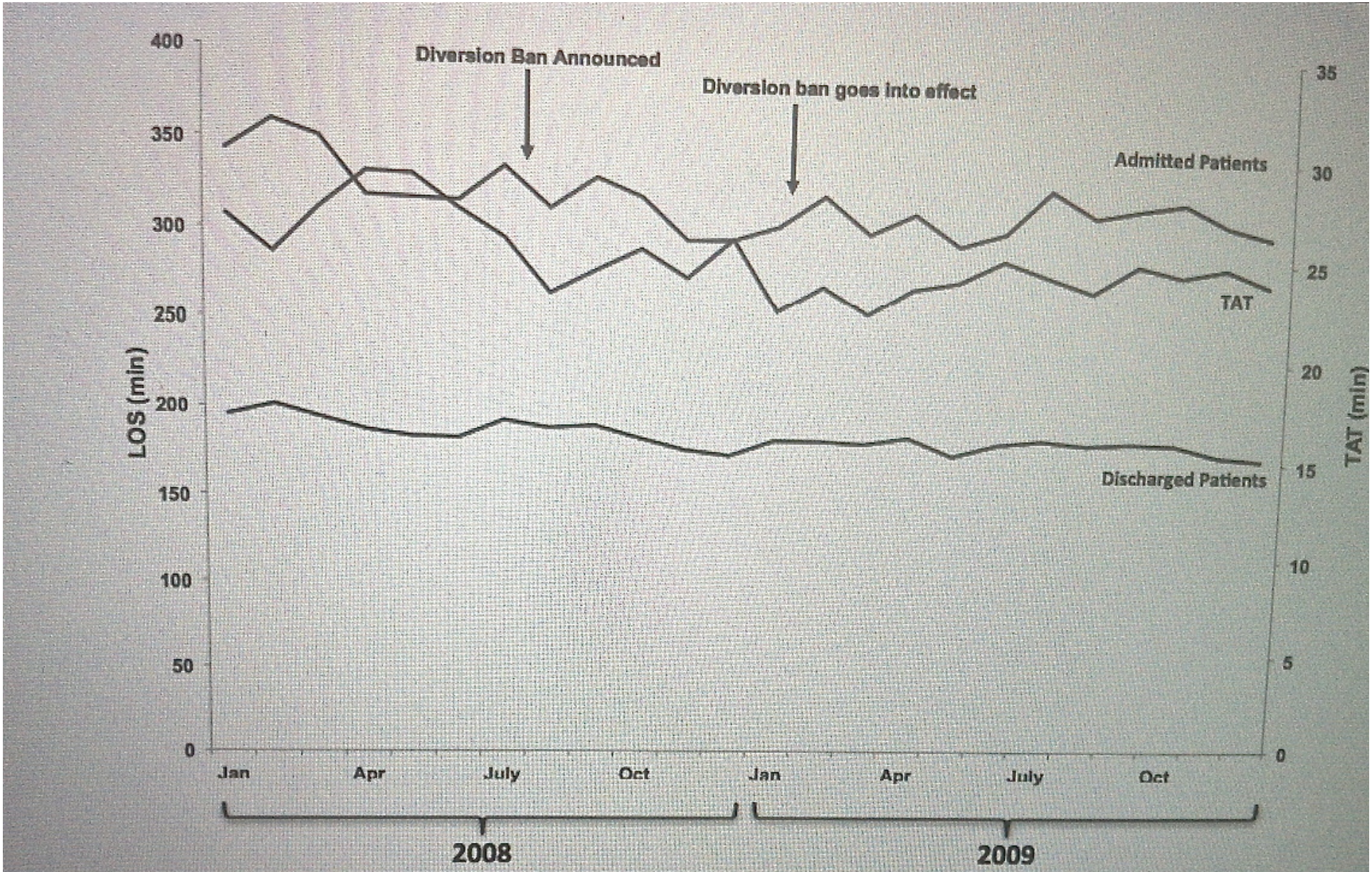



**Figure 2.** Length of stay for admitted and discharged patients and ambulance turnaround time by month.

# What Have We Done In DFW?

Joint effort led by the North Central Texas Trauma Regional Advisory Council (NCTTRAC) and the DFW Hospital Council.

EMS had multiple seats at the table.

NCTTRAC
NORTH CENTRAL TEXAS
TRAUMA REGIONAL ADVISORY COUNCIL

DFWHC

# NEDOCS

- NEDOCS is a web-based tool used by emergency departments all over the country to help communicate and ultimately visualize patient flow capacity to accelerate and improve patient healthcare

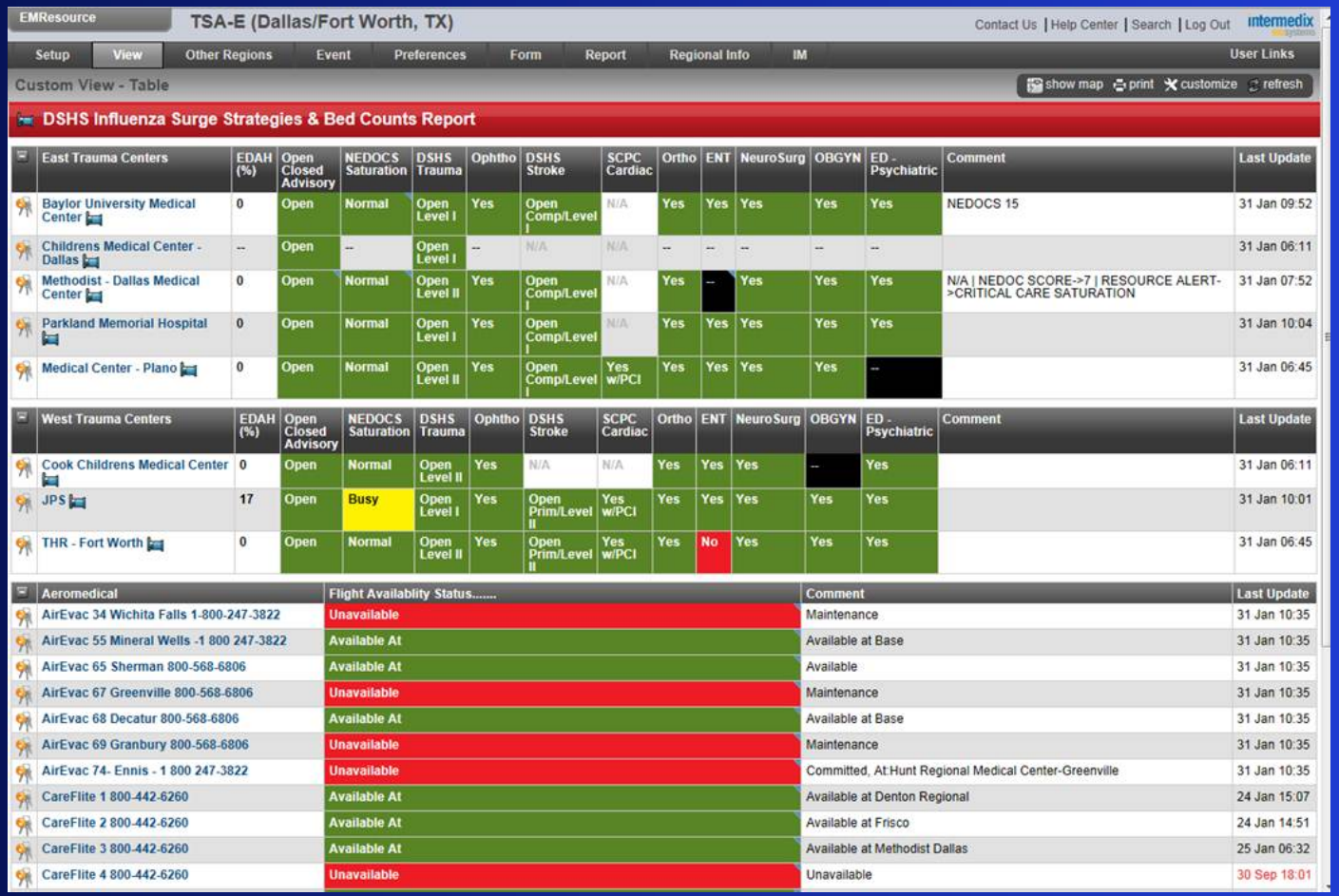
# NEDOCS in TSA-E

- NEDOCS was approved for use by an interdisciplinary workgroup between the Dallas Fort Worth Hospital Council (DFWHC) and the North Central Texas Regional Advisory Council (NCTTRAC).
- The NCTTRAC Board approved the purchase of NEDOCS access for all acute care hospitals to use as a component of a newly expanded EMResource view for Trauma Service Area (TSA)-E.

# Updated EMResource View

*First*
**OPEN**
**CLOSED**
**ADVISORY**

*Then*
**Disaster**
**Severe**
**Overcrowded**
**Busy**
**Normal**



EMResource | TSA-E (Dallas/Fort Worth, TX) | Contact Us | Help Center | Search | Log Out | intermedix

Setup | View | Other Regions | Event | Preferences | Form | Report | Regional Info | IM | User Links

Custom View - Table | show map | print | customize | refresh

**DSHS Influenza Surge Strategies & Bed Counts Report**

| East Trauma Centers | EDAH (%) | Open Closed Advisory | NEDOCS Saturation | DSHS Trauma | Ophtho | DSHS Stroke | SCPC Cardiac | Ortho | ENT | NeuroSurg | OBGYN | ED - Psychiatric | Comment | Last Update |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baylor University Medical Center | 0 | Open | Normal | Open Level I | Yes | Open Comp/Level I | N/A | Yes | Yes | Yes | Yes | Yes | NEDOCS 15 | 31 Jan 09:52 |
| Childrens Medical Center - Dallas | -- | Open | -- | Open Level I | -- | N/A | N/A | -- | -- | -- | -- | -- | | 31 Jan 06:11 |
| Methodist - Dallas Medical Center | 0 | Open | Normal | Open Level II | Yes | Open Comp/Level I | N/A | Yes | -- | Yes | Yes | Yes | N/A \| NEDOC SCORE->7 \| RESOURCE ALERT->CRITICAL CARE SATURATION | 31 Jan 07:52 |
| Parkland Memorial Hospital | 0 | Open | Normal | Open Level I | Yes | Open Comp/Level I | N/A | Yes | Yes | Yes | Yes | Yes | | 31 Jan 10:04 |
| Medical Center - Plano | 0 | Open | Normal | Open Level II | Yes | Open Comp/Level I | Yes w/PCI | Yes | Yes | Yes | Yes | -- | | 31 Jan 06:45 |

| West Trauma Centers | EDAH (%) | Open Closed Advisory | NEDOCS Saturation | DSHS Trauma | Ophtho | DSHS Stroke | SCPC Cardiac | Ortho | ENT | NeuroSurg | OBGYN | ED - Psychiatric | Comment | Last Update |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cook Childrens Medical Center | 0 | Open | Normal | Open Level II | Yes | N/A | N/A | Yes | Yes | Yes | -- | Yes | | 31 Jan 06:11 |
| JPS | 17 | Open | Busy | Open Level I | Yes | Open Prim/Level II | Yes w/PCI | Yes | Yes | Yes | Yes | Yes | | 31 Jan 10:01 |
| THR - Fort Worth | 0 | Open | Normal | Open Level II | Yes | Open Prim/Level II | Yes w/PCI | Yes | No | Yes | Yes | Yes | | 31 Jan 06:45 |

| Aeromedical | Flight Availablity Status..... | Comment | Last Update |
|---|---|---|---|
| AirEvac 34 Wichita Falls 1-800-247-3822 | Unavailable | Maintenance | 31 Jan 10:35 |
| AirEvac 55 Mineral Wells -1 800 247-3822 | Available At | Available at Base | 31 Jan 10:35 |
| AirEvac 65 Sherman 800-568-6806 | Available At | Available | 31 Jan 10:35 |
| AirEvac 67 Greenville 800-568-6806 | Unavailable | Maintenance | 31 Jan 10:35 |
| AirEvac 68 Decatur 800-568-6806 | Available At | Available at Base | 31 Jan 10:35 |
| AirEvac 69 Granbury 800-568-6806 | Unavailable | Maintenance | 31 Jan 10:35 |
| AirEvac 74- Ennis - 1 800 247-3822 | Unavailable | Committed, At:Hunt Regional Medical Center-Greenville | 31 Jan 10:35 |
| CareFlite 1 800-442-6260 | Available At | Available at Denton Regional | 24 Jan 15:07 |
| CareFlite 2 800-442-6260 | Available At | Available at Frisco | 24 Jan 14:51 |
| CareFlite 3 800-442-6260 | Available At | Available at Methodist Dallas | 25 Jan 06:32 |
| CareFlite 4 800-442-6260 | Unavailable | Unavailable | 30 Sep 18:01 |

# NEDOCS Measurement

## (National Emergency Department Over-Crowding Score)

Nationally accepted method of measuring ED overcrowding

**NEDOCS Variables**

**Total Patients** - The number of total patients in the ED at the time the score is calculated. This includes all patients in all areas including waiting patients, Fast Track patients, etc.

**ED Beds** - The total number of ED beds including hallways, chairs, fast track and other beds that can be used to serve patients at the time the score is calculated.

**Admits** - The number of holdovers/admits, in the ED, at the time the score is calculated.

**Hospital Beds** - The total number of hospital beds. Most implementations use the number of licensed beds that can be used in case of a disaster.

**Ventilators** - The number of patients on ventilators/respirators in the ED at the time the score is calculated.

**Longest Admit** - The longest admit holdover/boarding (in hours) at the time the score was calculated (Example: 3.5 = 3 hours 30 minutes).

**Last Bed Time** - The wait time (in hours) from arrival to bed for the last patient called for a bed (Example: 1.33 = 1 hour and 20 minutes).

# NEDOCS Calculation

## Formula

20 + 85.8 * (total # ED pts/#ED beds) + 600 * ( #admits/#Hospital Beds)

+ 13.4*(ventilators) + .93 *(last bed time) + 5.64 *(last bed time)

= NEDOCS Score

| 0 - 50 Normal | 51 - 100 Busy | 101 - 140 Over-crowded | 141 - 180 Severe | Above 180 Disaster |
|---|---|---|---|---|

# NEDOCS SCORE

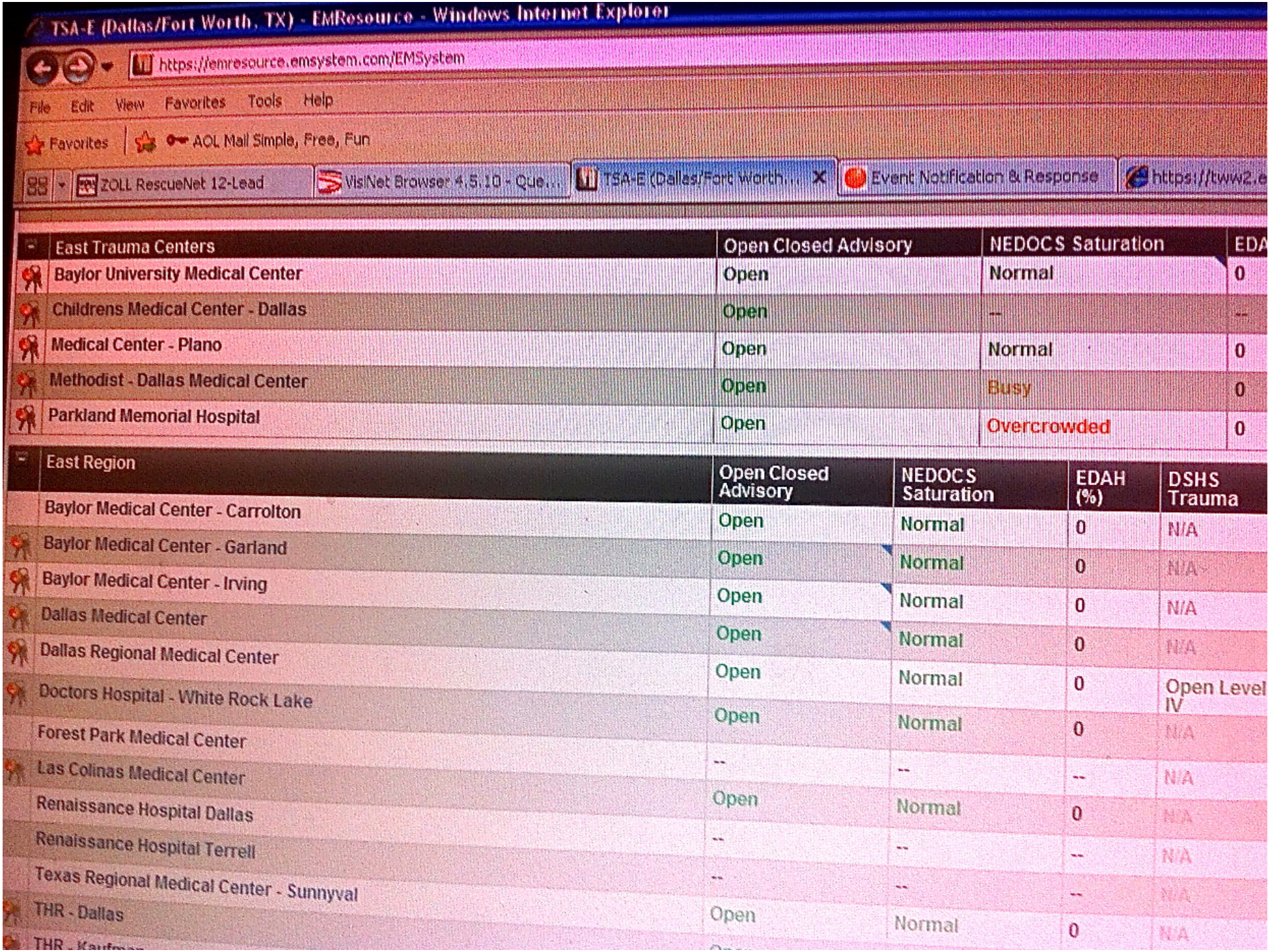
- The NEDOCS score and the reasons for the surge are evaluated:
  - Is it a front end problem – EMS, walk-ins, more in than out?
  - Is the problem internal to the ED with gridlock or work-ups
  - Is it a back end problem – getting patients out discharges, admits or transport

# Emergency Department Surge Plan

| ED: NEDOCS 0–60 (Not busy/Busy) | ED: NEDOCS 61-100 (Very busy) | ED: NEDOCS 101–140 (Overcrowded) | ED: NEDOCS 141-180 (Severe) | ED: NEDOCS >180 (Disaster) |
|---|---|---|---|---|
| • Flow Coord monitors NEDOCS every 2 hours<br>• ED Supr conducts shift huddles at change of shift<br>• Flow coordinator maintains "bed ahead" assignments for EMS and Triage<br>• WOW triage and direct to bed protocols carried out<br>• ACE routine hours<br>• ED physician/providers conduct medical screening exams within 30 minutes of arrival<br>• ED patients discharged within 15 minutes of DC order<br>• ED Physician contacts admitting physician for all ED admits.<br>• Admission orders written by admitting physician within 30 minutes<br>• Patients with room assigned are transferred within 30 minutes | • Flow Coord monitors NEDOCS every 2 hours<br>• Report "Very Busy" status to ED Supr and Admin Supr | • Flow Coord monitors NEDOCS every 1 hour<br>• Report "Overcrowded" status to ED Supr, Admin Supr, and ED Mgr<br>• Flow Coord, ED Supr, ED Mgr and A-Area physician huddle at Flow Coord desk at onset of "Overcrowded" status and every 2-4 hours<br>• Surge plan for next 2-4 hours communicated to ED personnel<br>• Assess need to expand ACE past routine hours<br>• Consider need for Surge Provider in Triage<br>• Utilize ED sub-waiting rooms for patients pending discharge (as condition permits)<br>• Admitting physicians contacted for rapid disposition of admitted patients | • Monitors NEDOCS every 1 hour<br>• Report "Severe" status to Admin Supr, Manager, and Director<br>• ED Director notifies CNO<br>• Flow Coord, ED Supr, ED Mgr/Dir (if on-site) and A-Area physician huddle at Flow Coord desk at onset of "Severe" status and every 1-2 hours<br>• Surge plan for next 1-2 hours communicated to ED personnel<br>• "All hands on deck" for ED office staff<br>• ED Materials staff check stock levels and resupply as needed | • If ED Disaster level only and no other internal disaster, Admin Supr meets with ED Director and VP's and CNO to determine plan to decompress ED.<br>• For full disaster activation, ED representative reports to Hospital Command Center by foot or by phone<br>• If Internal Disaster called, Flow Coordinator Enters "Closed" status on EMSystem. Updates every 2 hours while on Internal Disaster.<br>• Report available resources or needs to the **Hospital Command Center.** |

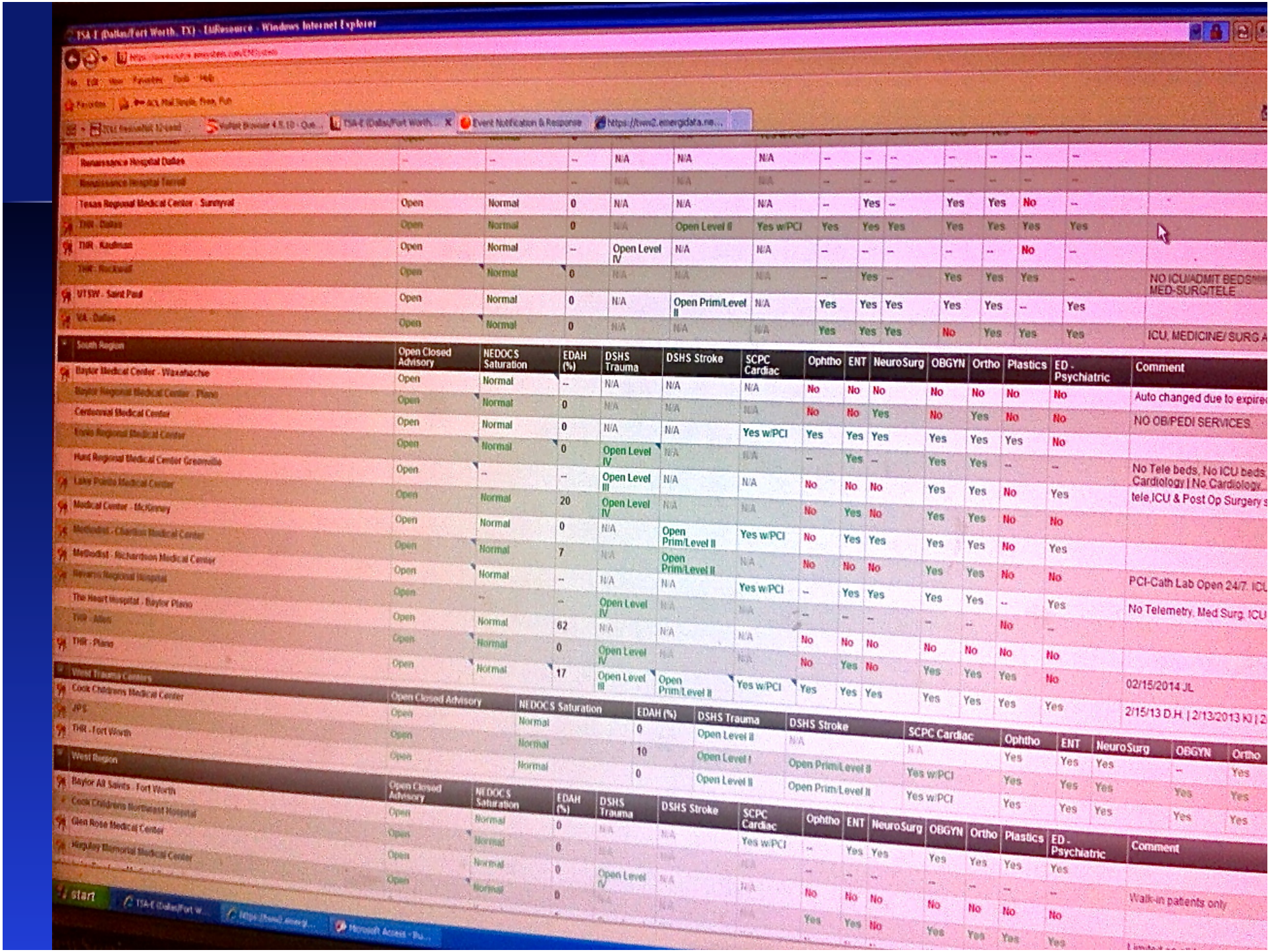
# Surge Action Plans

- Implement surge plans for internal ED processes
- Implement hospital surge plan to assist ED with issues (i.e. Radiology back-ups, admit holdovers, etc)
- Multidisciplinary and multi-unit involvement important
- Communication and Implementation
- Senior Leadership support


TSA-E (Dallas/Fort Worth, TX) - EMResource - Windows Internet Explorer
https://emresource.emsystem.com/EMSystem
File Edit View Favorites Tools Help
Favorites AOL Mail Simple, Free, Fun
ZOLL RescueNet 12-Lead VisiNet Browser 4.5.10 - Que... TSA-E (Dallas/Fort Worth... Event Notification & Response https://tww2.e

| East Trauma Centers | Open Closed Advisory | NEDOCS Saturation | EDA |
|---|---|---|---|
| Baylor University Medical Center | Open | Normal | 0 |
| Childrens Medical Center - Dallas | Open | -- | -- |
| Medical Center - Plano | Open | Normal | 0 |
| Methodist - Dallas Medical Center | Open | Busy | 0 |
| Parkland Memorial Hospital | Open | Overcrowded | 0 |

| East Region | Open Closed Advisory | NEDOCS Saturation | EDAH (%) | DSHS Trauma |
|---|---|---|---|---|
| Baylor Medical Center - Carrolton | Open | Normal | 0 | N/A |
| Baylor Medical Center - Garland | Open | Normal | 0 | N/A |
| Baylor Medical Center - Irving | Open | Normal | 0 | N/A |
| Dallas Medical Center | Open | Normal | 0 | N/A |
| Dallas Regional Medical Center | Open | Normal | 0 | Open Level IV |
| Doctors Hospital - White Rock Lake | Open | Normal | 0 | N/A |
| Forest Park Medical Center | -- | -- | -- | N/A |
| Las Colinas Medical Center | Open | Normal | 0 | N/A |
| Renaissance Hospital Dallas | -- | -- | -- | N/A |
| Renaissance Hospital Terrell | -- | -- | -- | N/A |
| Texas Regional Medical Center - Sunnyval | Open | Normal | 0 | N/A |
| THR - Dallas | | | | |
| THR - Kaufman | | | | |



TSA-E (Dallas/Fort Worth, TX) - ExResource - Windows Internet Explorer

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Renaissance Hospital Dallas | -- | -- | -- | N/A | N/A | N/A | -- | -- | -- | -- | -- | -- | -- | |
| Renaissance Hospital Terrell | -- | -- | -- | N/A | N/A | N/A | -- | -- | -- | -- | -- | -- | -- | |
| Texas Regional Medical Center - Sunnyvale | Open | Normal | 0 | N/A | N/A | N/A | -- | Yes | -- | Yes | Yes | No | -- | |
| THR - Dallas | Open | Normal | 0 | N/A | Open Level II | Yes w/PCI | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| THR - Kaufman | Open | Normal | -- | Open Level IV | N/A | N/A | -- | -- | -- | -- | -- | No | -- | |
| THR - Rockwall | Open | Normal | 0 | N/A | N/A | N/A | -- | Yes | -- | Yes | Yes | Yes | -- | NO ICU/ADMIT BEDS/ MED-SURG/TELE |
| VTSW - Saint Paul | Open | Normal | 0 | N/A | Open Prim/Level II | N/A | Yes | Yes | Yes | Yes | Yes | -- | Yes | |
| VA - Dallas | Open | Normal | 0 | N/A | N/A | N/A | Yes | Yes | Yes | No | Yes | Yes | Yes | ICU, MEDICINE/ SURG A |

| South Region | Open Closed Advisory | NEDOCS Saturation | EDAH (%) | DSHS Trauma | DSHS Stroke | SCPC Cardiac | Ophtho | ENT | NeuroSurg | OBGYN | Ortho | Plastics | ED - Psychiatric | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baylor Medical Center - Waxahachie | Open | Normal | -- | N/A | N/A | N/A | No | No | No | No | No | No | No | Auto changed due to expire |
| Baylor Regional Medical Center - Plano | Open | Normal | 0 | N/A | N/A | N/A | No | No | Yes | No | Yes | No | No | NO OB/PEDI SERVICES |
| Centennial Medical Center | Open | Normal | 0 | N/A | N/A | Yes w/PCI | Yes | Yes | Yes | Yes | Yes | Yes | No | |
| Ennis Regional Medical Center | Open | Normal | 0 | Open Level IV | N/A | N/A | -- | Yes | -- | Yes | Yes | -- | -- | No Tele beds. No ICU beds. Cardiology I No Cardiology |
| Hunt Regional Medical Center Greenville | Open | -- | -- | Open Level III | N/A | N/A | No | No | No | Yes | Yes | No | Yes | tele,ICU & Post Op Surgery s |
| Lake Pointe Medical Center | Open | Normal | 20 | Open Level IV | N/A | N/A | No | Yes | No | Yes | Yes | No | No | |
| Medical Center - McKinney | Open | Normal | 0 | N/A | Open Prim/Level II | Yes w/PCI | No | Yes | Yes | Yes | Yes | No | Yes | |
| Methodist - Charlton Medical Center | Open | Normal | 7 | N/A | Open Prim/Level II | N/A | No | No | No | Yes | Yes | No | No | PCI-Cath Lab Open 24/7. ICU |
| Methodist - Richardson Medical Center | Open | Normal | -- | N/A | N/A | Yes w/PCI | -- | Yes | Yes | Yes | Yes | -- | Yes | No Telemetry, Med Surg, ICU |
| Navarro Regional Hospital | Open | -- | -- | Open Level IV | N/A | N/A | -- | -- | -- | -- | -- | No | -- | |
| The Heart Hospital - Baylor Plano | Open | Normal | 62 | N/A | N/A | N/A | No | No | No | No | No | No | No | |
| THR - Allen | Open | Normal | 0 | Open Level IV | N/A | N/A | No | Yes | No | Yes | Yes | Yes | No | 02/15/2014 JL |
| THR - Plano | Open | Normal | 17 | Open Level III | Open Prim/Level II | Yes w/PCI | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 2/15/13 D.H. I 2/13/2013 KI I 2 |

| West Trauma Centers | Open Closed Advisory | NEDOCS Saturation | EDAH (%) | DSHS Trauma | DSHS Stroke | SCPC Cardiac | Ophtho | ENT | NeuroSurg | OBGYN | Ortho |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cook Childrens Medical Center | Open | Normal | 0 | Open Level II | N/A | N/A | Yes | Yes | Yes | -- | Yes |
| JPS | Open | Normal | 10 | Open Level I | Open Prim/Level II | Yes w/PCI | Yes | Yes | Yes | Yes | Yes |
| THR - Fort Worth | Open | Normal | 0 | Open Level II | Open Prim/Level II | Yes w/PCI | Yes | Yes | Yes | Yes | Yes |

| West Region | Open Closed Advisory | NEDOCS Saturation | EDAH (%) | DSHS Trauma | DSHS Stroke | SCPC Cardiac | Ophtho | ENT | NeuroSurg | OBGYN | Ortho | Plastics | ED - Psychiatric | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baylor All Saints - Fort Worth | Open | Normal | 0 | N/A | N/A | Yes w/PCI | -- | Yes | Yes | Yes | Yes | Yes | Yes | |
| Cook Childrens Northeast Hospital | Open | Normal | 0 | N/A | N/A | N/A | -- | -- | -- | -- | -- | -- | -- | |
| Glen Rose Medical Center | Open | Normal | 0 | Open Level IV | N/A | N/A | No | No | No | No | No | No | No | Walk-in patients only |
| Harguley Memorial Medical Center | Open | Normal | 0 | N/A | N/A | N/A | Yes | Yes | No | Yes | Yes | Yes | Yes | |

# Ultimately: NO DIVERSION

Hospitals are either:

OPEN

OPEN WITH ADVISORY

CLOSED (due to disaster declaration)

# Does Your EMS System Currently Allow Diversion?

-If so, are their written guidelines?

-Are there standardized definitions and “rules” applied to each ED regarding diversion?

-Who policies the system?

# Are There Exceptions For Specialty Patients, Such As Trauma?

# Big City EMS

- The "EAGLES" were surveyed 2 days ago!!!
- EAGLES systems are ALL OVER THE PLACE on the issue of diversion.
- This paper can be used to convince stakeholders that the world will not end and patient care will not suffer if the practice of ambulance diversion is eliminated.


EMERGENCY
OPEN DAILY
9:00 AM TO 8:30 PM

# REALLY?

News

# Video: Canadian Woman Dies during Ambulance Delay and Diversions

## Response upgraded upon note of change in condition

# Don't Throw Out Common Sense…

- Once diversion is eliminated, paramedics, EMT's and firefighters should continue to use common sense and the be penultimate patient advocates in determining the most appropriate destination for their patients.

# Where Do We Go From Here?

- Read the article
- Find a "champion"
- Get the stakeholders to the table
- Develop an implementation plan and timetable.
- Abolish diversion practices.

# What If That Doesn't Work?

Another option is to abolish the practice of diversion through either the legislative or regulatory process, if local stakeholders will not come to the table or remain recalcitrant in the face of the data.

# Don't Let the Medics Be the Target


Eckstein EAGLES Article

## Facilitating EMS Turnaround Intervals at Hospitals in the Face of Receiving Facility Overcrowding

Marc Eckstein, MD, S. Marshal Isaacs, MD, Corey M. Slovis, MD, Bradley J. Kaufman, MD, James R. Loflin, MD, Robert E. O'Connor, MD, Paul E. Pepe, MD, MPH (Writing Group), on behalf of the U.S. Metropolitan Municipalities' EMS Medical Directors Consortium*

Abstract

The escalating national problem of oversaturated hospital beds and emergency departments (EDs) has resulted in serious operational impediments within patient-receiving facilities. It has also had a growing impact on the 9-1-1 emergency care system. Beyond the long-standing difficulties arising from ambulance diversion practices, many emergency medical services (EMS) crews are now finding themselves detained in EDs for protracted periods, unable to transfer care of their transported patients to ED staff members. Key factors have included a lack of beds or stretcher space, and, in some cases, EMS personnel are used transiently for ED patient care services. In other circumstances, ED staff members no longer prioritize rapid turnaround of EMS-transported patients because of the increasing volume and acuity of patients already in their care. The resulting detention of EMS crews confounds concurrent ambulance availability problems, creates concrete risks for delayed EMS responses to impending critical cases, and incurs regulatory jeopardy for hospitals. Communities should take appropriate steps to ensure that delivery intervals (time elapsing from entry into the hospital to physical transfer of patient care to ED staff) remain extremely brief (less than a few minutes) and that they rarely exceed 10 min- and local government officials should still maintain ongoing dialogues with hospital chief administrators to mitigate this mutual crisis of escalating service demands. Federal and state health officials should also play an active role in monitoring progress and compliance. **Keywords:** 9-1-1 systems; emergency medical dispatch; EMD; emergency medical services; EMS; hospital overcrowding; Emergency Medical Treatment and Labor Act; EMTALA; ambulance diversion; regulatory violations; access to care; patient choice.

PREHOSPITAL EMERGENCY CARE 2005;9:267–275

### Overview

Emergency medical services (EMS) systems have always placed a great deal of emphasis on response intervals, largely because of the direct association with a patient's chance of survival following out-of-hospital cardiac arrest and other emergencies.[1–7] In turn, response intervals often drive EMS system configuration, resource allocation, deployment strategies, and service delivery models. Response intervals are also pivotal in terms of decisions regarding the number of available

# Conclusion

- Communities considering introducing a ban on ambulance diversion should be encouraged that neither ED length of stay nor ambulance turnaround time increased at 9 Boston-area hospitals after an ambulance diversion ban was introduced in Massachusetts.

# I Declare the Practice of Diversion To Be Dead!

Now….
let's bury this sucker.

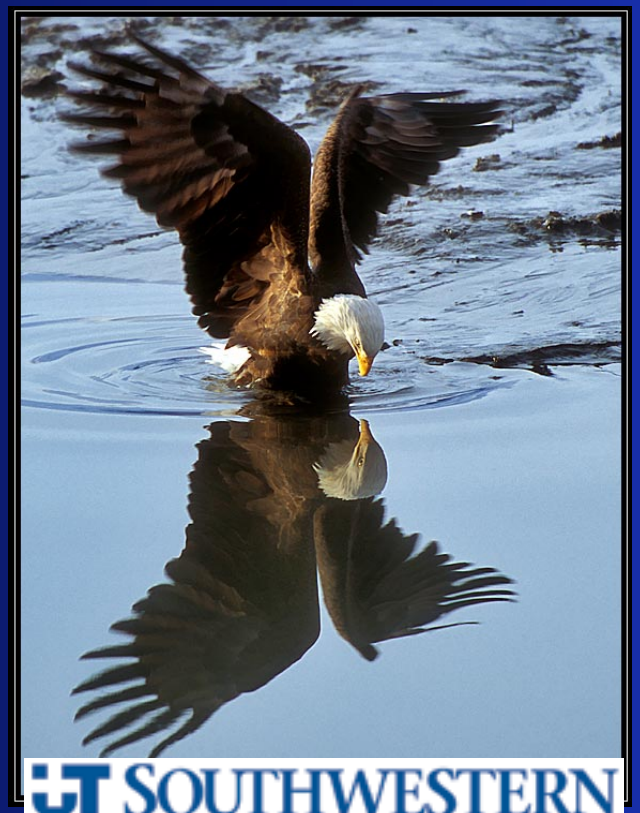

"Not everyone can be a hero but everyone can be great, because greatness is determined by service."

-Martin Luther King, Jr.

# Thanks to:

- Leigh Anne Bedrich, NCTTRAC
- The Dallas/Fort Worth Hospital Council
- Kris Powell, Baylor University Medical Center
- Clifann McCarley, Vice President, Emergency Services, Parkland
- Josh Floren, Chief Operating Officer, Parkland Memorial Hospital
- LuAnn McKee, BioTel, Parkland Memorial Hospital
- BioTel Agency Chiefs, Officers and paramedics
- Assistant Chief Norman Seals, DFR
- EMS Deputy Chief George Gamez, DFR
- EMS Section Chief Tami Kayea, DFR
- Deb Cason, Dr. Gil Salazar, UTSW EMS Education
- UTSW EMS Fellows: Dr. Preston Fedor, Dr. Sean Covant and Dr. Scott Goldberg

# Thank You for Your Attention !!!



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