

TRB EMS Subcommittee ANB10(5)

EMS Safety Summit 2012

Safety Systems, Strategies and Solutions

Balancing Relative Benefit in Safety Initiatives

Dia Gainor, NASEMSO Executive Director

February 29th , 2012

Balancing Relative Benefit in Safety Initiatives

February 29, 2012

Dia Gainor, NASEMSO Executive Director





CH BOARD

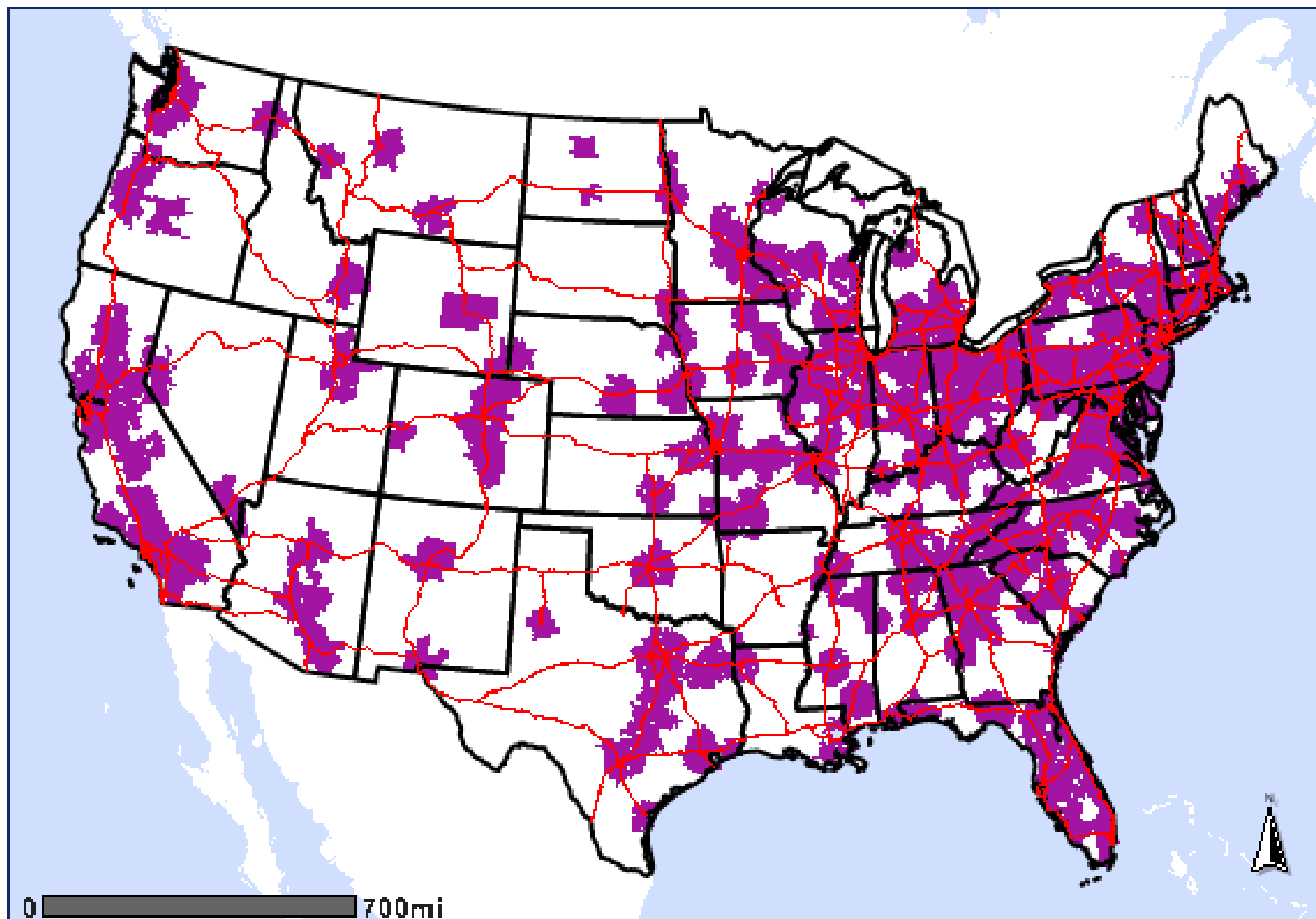
Level I/II Trauma Center Coverage

Existing System:

% Popn	% Land
83.13%	28.68%

Legend

- Helicopter
- Ambulance
- Either



Relative benefit: Data Sharing Between PSAPs, the Scene, Emergency Response and Hospitals

- Predictors of Injury Severity
- Mobile Apps
- Route selection & guidance



The Washington Update

Feb. 7, 2012 (PDF)
Subscribe to receive the Washington Update via email

National EMS Assessment (includes the *NAEMSO 2011 EMS Industry Snapshot!*)

EMS Network News

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EMSN Latest News

Ambulance involved in collision on US 119 - West Virginia

Feb 16, 2012 - 7:43:10 PM

6 injured as car hits ambulance in Pensacola - Florida

Feb 16, 2012 - 7:42:22 PM

Two brought to hospital after County Ambulance, Volvo collision - Massachusetts

Feb 16, 2012 - 7:40:07 PM

Ambulance crash leaves 1 dead in Beaufort Co. - South Carolina

Feb 16, 2012 - 7:35:42 PM

Ambulance, vehicle collision shuts down Highway 395 - California

Feb 16, 2012 - 7:34:54 PM

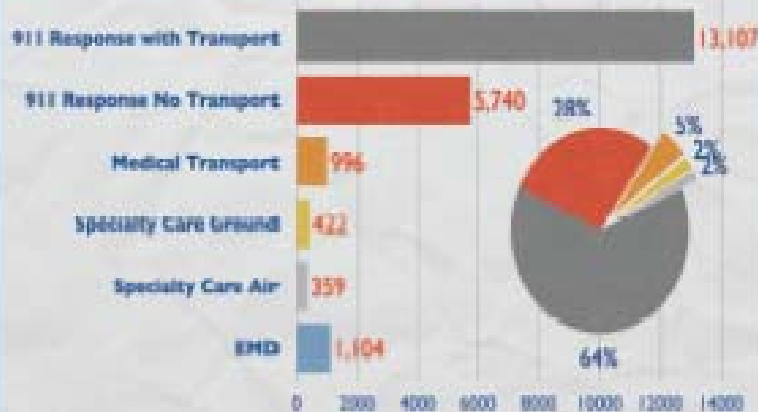
SUV collides with ambulance near Ferndale; 2 medics, driver hospitalized - Washington

Feb 16, 2012 - 7:33:36 PM

A Bad Day? Or a Typical Day?

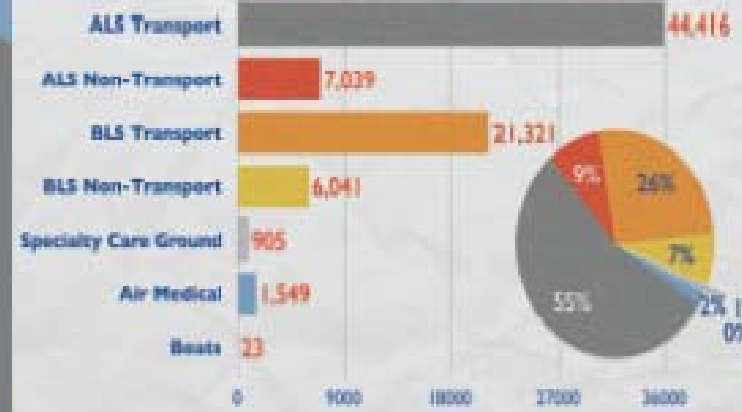
19,437 EMS ORGANIZATIONS

(AVERAGE OF 9.2 EMS AGENCIES PER COUNTY)



78,258 EMS VEHICLES

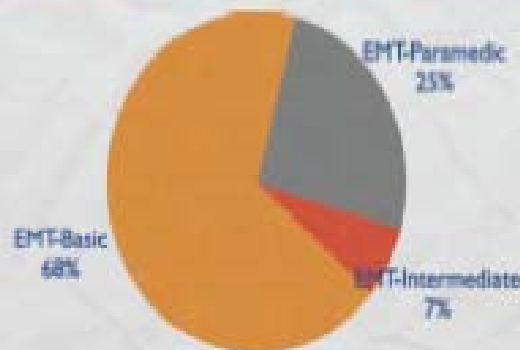
(2.98/10,000 POP)



4 NEW THINGS WE KNOW ABOUT EMS IN THE USA

826,111 EMT (B, I, P) PROFESSIONALS

(28.7/10,000 POP)



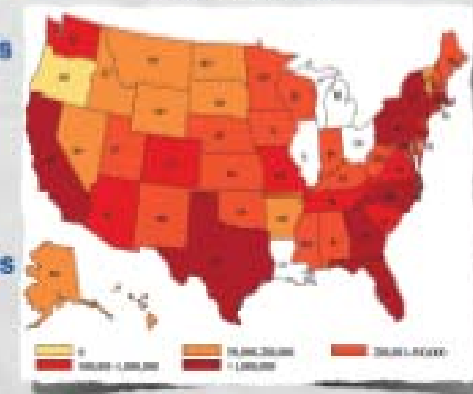
• Only 30 states credential PR. Only 8 states credential PE.

36,698,670 EMS RESPONSES

(1,217/10,000 POP)

Total
2009 EMS Transports
28,004,624
(76%)
National EMS
Database
2009 EMS Responses
6,280,553
(22%)

2009 EMS Responses by State



• IL, LA, MI, OH, OR, NJ not reporting but extrapolated to a National Total



THE CENTER OF IT ALL



↑ Franklin Rd.

City Center →



DETOUR
↑

St. Clair

ROAD WORK AHEAD



CHINESE BUFFET

THE NATIONAL BUFFET CHAIN

EVIDENCE BASED QUALITY ASSESSMENT

- Determine clinical “picture” based on EMS, hospital, and trauma center evaluation**
- Assess which patients were transported where... and why?**
- Evaluate patient care quality**
- Identify trends in medical consequences of crashes and prehospital treatment**
- Measure patient outcomes**
- Performance improvement initiatives for incident management and future evidence based training**

Relative benefit: Improved data sharing with EMS:

- Linkage of crash, roadway inventory, and emergency medical records
- Inventories of emergency care elements and EMS incident response readiness
- Retrospective and real time use of device-driven data

CARS Mayday Module

EMS Response Screen

Crash at 8:29 PM, 5/8/10

Probability of Injury: 92%

[Add/Edit Passenger Details](#)

Passenger	Age	Gender	Safety Belt	Entrapment	Ejection	Prob. of Inj.
1	40	F	N	Y	N	92.0%

DeltaV: 30mph

PSAP Contact:

PAYETTE
1130 3RD AVE N
PAYETTE, ID 83861
(208) 642-6006

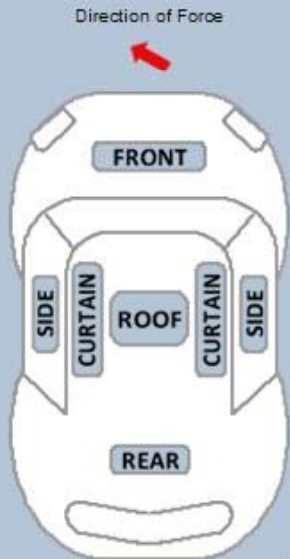
Incident Information:

Incident ID: 1438314045
Event Notification: Vehicle Accelerometer
Event Verified:
Rollover: No
Data Provider: OnStar
Provider Contact: 800-466-7827

Vehicle Information:

Color: White
Year: 2009
Manufacturer: General Motors
Make: Chevrolet (1)
Model: Cobalt Sedan

[<< Previous Report](#) [Next Report >>](#)



Airbag Deployed

Car Curb Weight (lbs):

Passenger Side Damage?

Rear Damage?

Incoming Report

H At (43.93, -116.75) 10:25 PM 5/8/10 Crash

At A35. Look out for an accident.

ID: ONSTAR-1438314045.2 Author: unknown
Status: **CURRENT** Auto-held (updated) Received: 10:25 PM, 5/8/10

Recommended action based on probability of injury calculation:

- Provide information to PSAP and suggest vehicle extrication, helicopter request and closest and/or receiving hospital early notification.

The map shows a street view of the crash location. A red circle highlights a car icon with a red arrow pointing towards it. The location is near Sand Hollow Rd and Dewey Rd. A scale bar indicates 2 miles and 2 kilometers.

Map data ©2010 Google - Terms of Use

Example of how a **MIECE** color-coded road map might appear:

- **Green** – high level of emergency care resources
- **Yellow** – medium level of emergency care resources
- **Red** – low level of emergency care resources



BENEFITS SQUARED

- Improvements to EMS overall as a transportation mode
- Improved outcomes for patients with time-urgent conditions
- Advancements in telemedicine & teletrauma
- Benefits Cubed: Counterbalancing the rural disparity

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