

EMS Transport Safety Summit 2012

Safety Systems, Strategies and Solutions

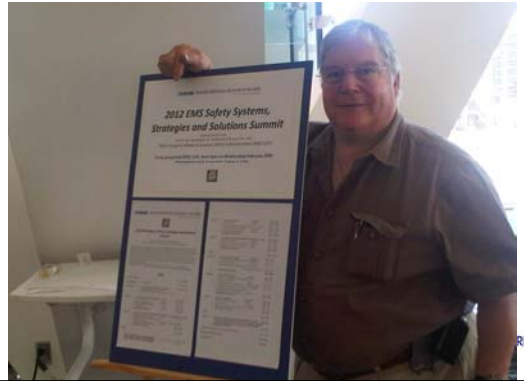
Nadine Levick MD, MPH
Chair ANB10(5)
CEO, Research Director EMS Safety Foundation

EMS Subcommittee of the TRB ANB10(5)
EMS Transport Safety Summit

February 29th, 2012



Thank you AJ and JEMS!!



Welcome to those joining us at EMS Today



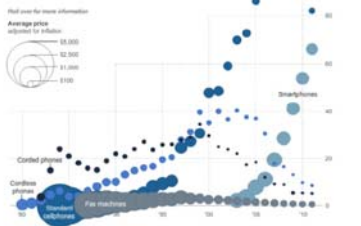
Since 2009

- New perspectives
- New technologies
- New generations focus
- New vehicles
- New platforms
- New policies/standards
- New international models



Communication Technology trends

Rise and Fall of Gadgets

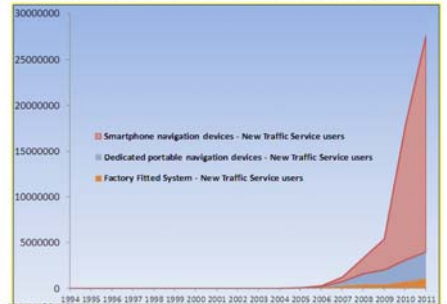


NOTE: 2010 data are estimates and 2011 data are projections. GRAPHIC: Alicia Partapiano / The Washington Post - January 10, 2011



Smartphone navigation devices

US New Traffic Subscribers 1996 to 2011



Courtesy: Navteq

U.S. Department of Transportation



January 2012, USA

Smartphone penetration by age and income



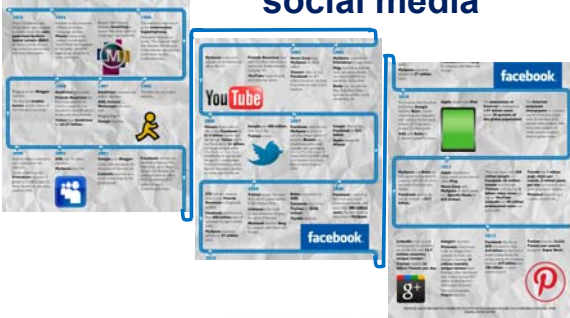
Source: Nielsen

Generation - Y



A History of the Business of Social Media :-)

The new world of social media



The Cloud is Global



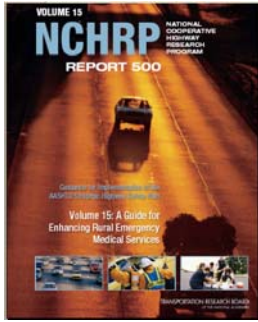
TRB MISSION

- To provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal.

Special role for EMS at TRB

- One of the Key 4 E's
 - Engineering
 - Education
 - Enforcement
 - Emergency Medical Services**

Transportation Research Board is an excellent resource... we should be using it!!



TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

ANB10 (5) TRB EMS Subcommittee Mission

- 'Bridging the gap between what we do and what is known - Enhancing ambulance transport safety through shared knowledge of technical data'.

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Fragmentation Panacea

- ANB10(5) is an independent platform for:
- Bringing fragmented information together
 - Uniting diverse disciplines
 - Focus on technically robust information

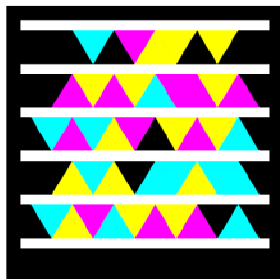
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Multidisciplinary research

- Encompassing all aspects of transportation
- The expertise that EMS needs to address its transportation safety challenges includes:
 - Systems design
 - Transport systems safety
 - Human factors
 - Vehicles
 - Vehicle operations
 - Air medical transport safety
 - Impaired operators
 - Road design and egress and access
 - Highway and operational hazards

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TRB ANB10 (5) eTag



BOARD

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Bridging technical experts, operational EMS providers and the government agencies too

EMS Safety Subcommittee Mid-year Meeting and Safety Summit

Friday, November 7, 2008 1:00 PM - 4:00 PM EST

The purpose of the summit is to share information and research and address transportation safety operational data. Topics to be discussed include, but are not limited to, the following:

- Current and future research on ambulance safety and operational data
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The event will be held at the University of Maryland, College Park, Maryland. The event will be held at the University of Maryland, College Park, Maryland. The event will be held at the University of Maryland, College Park, Maryland.

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Please do go and access this information, it comes from technical and operational experts and it is gratis



Its out there NOW

- There have been two TRB Summits held, 2008, 2009 and both with vehicle engineering and transportation systems technical expertise
- See www.trb.org, and for the Summit archives: www.objectivesafety.net/TRBSummit2008.htm www.objectivesafety.net/TRBSummit2009.htm



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EMS Safety Systems, Strategies and Solutions Summit, February, 29, 2012

- How do we measure system safety?
- What metrics drive safety decision making?
- What are the safety hazards this system faces?
- How do we balance the system safety for the patient provider and public?
- How much should a medic lift?
- What is a safe speed?
- How many hours are safe before we are impaired?
- How many hours of EVOC makes the system safer?
- What are the cost and risk benefits of simulators ?



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EMS Safety, Systems, Strategies and Solutions Summit, February, 29, 2012

- What benchmarks in other industries are relevant to EMS?
- What are the determinants of system safety?
- What technologies enhance system safety performance?
- How do we reach out to all personnel levels?
- What strategies work best with reaching out to each generation?
- What are global best practice models?
- How can we translate global interdisciplinary best practice initiatives to North American EMS?



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1980's Then....



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1980's Then....



And 2009...



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Now...



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Innovative vehicles

<http://www.emssafetyfoundation.org/NAEMSP2012poster.pdf>

Alternate vehicles

IMPROVED RESPONSE TIMES WITH MOTORCYCLE BASED FAST RESPONSE PARAMEDICS IN AN URBAN SETTINGS

Ong Marcus, MBBS, FRCS Ed (A&E)

Regional, Specialist of Emergency Medicine, Singapore General Hospital

Chan YH, PhD

Head Emergencies, Central Train and Examination Development, Ministry of Health

A/P V Anantharaman, MBBS, MRCP, FRCS Ed (A&E), FAMS

Senior Consultant and Head, Department of Emergency Medicine, SGT Clinical Academic Professor, Faculty of Medicine, NUS

Introduction

The hospital response vehicles are known to be an important factor in the level of care provided by any emergency medical system.

In My EMS, response vehicles are known



Objectives

To use EMS to reduce the response time with motorcycle based fast response paramedics (FMRP) compared with standard ambulances in an urban setting.

Methods

A prospective, observational study. Simulations of an urban setting with FMRP vehicles with automated external defibrillators and standard ambulances for cardiac arrest, cardiac, respiratory conditions and other life-threatening conditions.



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Rules/Policies Addressing Known Hazards

- Federal Motor Carrier Safety Administration (FMCSA)
 - Cell phone use – November 2011
 - Hours of Service – December 2011

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Nov 2011, Hand Held Cell Phone Ban

<http://www.fmcsa.dot.gov/about/news/news-releases/2011/Secretary-LaHood-Announces-Step-towards-Safer-Highways.aspx>

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Dec 2011, New FMCSA Hours of Service

<http://www.fmcsa.dot.gov/rules-regulations/topics/hos/index.htm>

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New Fleet Operations Standards

- ISO 39001
- ANSI/ASSE Z.15

New Vehicle Standards

- NFPA 1917

New Equipment Mounting Testing Standards

- SAE 2917, 2956

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New National Platforms

- NAEMT National (and International!) Safety Course
- ACEP Safety Culture
- NIST/DHS/NIOSH initiatives
- EMS Safety Foundation Innovation Consortium
- Interdisciplinary Podcasts

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High Tech Interactive Innovation Center



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Interdisciplinary and International Collaboration/Integration

Swedish industrial designer
meets
North American Ambulance
builder

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the result of the frequency analysis, green dots mark equipment used every time the ambulance is driven, orange



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Sharing Information with International Colleagues Rettmobil 2012 – May 9-11th

A composite image featuring a poster for 'RETTmobil 2012' and a snippet of a news article. The poster includes the text 'Messe Galerie Fulda - May 9th - 11th' and 'The European Leading Fair for Rescue and Mobility'. The news article snippet, titled 'The Fair of Records', reports on the success of the 11th RETTmobil in Fulda, mentioning 21,000 trade visitors and 400 exhibitors.

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No longer are the manufacturers left holding the baby – there is now active interdisciplinary collaboration



Change and Innovation

- Improved data systems for injury
- Enhanced data on denominator
- New technologies
- New policies/standards
- Interdisciplinary collaboration

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