

# Ambulance Transport Safety Summit

## Bridging the gap between what we do and what is known

EMS Subcommittee of the TRB Ambulance Transport Safety Summit

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## Goal of the Summit

“Enhancing ambulance transport safety through shared knowledge of technical data”



## Road Safety: A System Perspective



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## National Statistic 2008

2008

- 5,811,000 police-reported motor vehicle traffic crashes
- 37,261 people were killed as a result
- 2,346,000 people were injured
- 21 to 24 year olds had the highest fatality rate (per 100,000 population)

Source: NHTSA . gov



## Just the Facts: Eleven Year Report

**339 Fatal Ambulance Crashes**

*405 Fatalities*

*838 Other Injuries*

Source: Journal of the National Association Of EMS Physicians July / September 2001  
Characteristics of fatal ambulance crashes in the US: 11 year report



## Contributing Risk Factors in EMS Accidents

- Unsafe Backing
- High Speed Driving
- High Forces
- Lack of Passenger Restraints



## Risky Behaviors

### Unsafe Backing (Backing by Braille)

- 25% of all trucking accidents involve backing
- 500 deaths and 15,000 injuries each year are attributed to backing collisions
- Cost: \$1.3 billion a year in the US



\* Source: National Safety Council  
Source of costs: NHTSA, 2004



## Risky Behaviors

### High Speed Driving

- Reduces drivers ability to react to dangerous situations
- Speeding is a contributing factor in 30% of all fatal crashes
- Speeding costs society an estimated \$44,193 a minute



Source: nhisa



## Risky Behaviors

### High Forces

- hard decelerations, cornering too fast and rapid accelerations
- Causes vehicle to lose stability and traction
- 3% of crashes are rollovers, yet they account for 33% of occupant fatalities



Source: nhisa



## Risky Behavior

### Failure to Wear Seatbelts

- Seatbelts reduce risk of fatal injury to front seat passengers by 45%
- From 1975 to 2004 an estimated 195,382 lives saved by safety belts
- 74% of vehicle occupants totally ejected from vehicle are killed



Source: nhisa Traffic Safety Facts 2004 data



## Road Safety Computer System

- Ignition
- Vehicle Speed
- Vehicle RPM
- Lateral G-Forces
- Horizontal G-Forces
- Brake
- Parking Brake
- Left Turn Signal
- Right Turn Signal
- Reverse Gear
- Spotter Switches
- Emergency Lights
- Siren
- Seatbelt



## Road Safety Provides Audible Tones For Real Time Feedback To The Driver

- Seatbelt
- Over Speed
- Excessive Force
- Backing Spotter
- System Log In





## In Conclusion

- ✓ We realized dramatic change in our drivers attitude toward safety
- ✓ We have evidence based data to use for individual driver training and refresher courses
- ✓ We are able to identify drivers that fail to align themselves with our mission of safety



## Questions??

- Please raise your hand or type in the message box

