Cutting in Half the Number of Fatalities in Two Decades (Moving Towards Zero Deaths) in the United States

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Boa-tarde senhoras e senhores

Overview

- Worldwide and USA’s Highway traffic death trends
- Strategies to reduce traffic deaths
- Toward Zero Deaths
A PUBLIC HEALTH EPIDEMIC

More than 1.2 million deaths a year worldwide

50+ million serious injuries

5th leading cause of death by 2030 (2.4 million deaths per year)

#1 cause of death of young people aged 10 to 25

MAKE ROADS SAFE
Highway Deaths – Where Are We?

2006
42,708

2007
41,259

2008
37,621

2009
33,963

3%

10%

9%
# Road Fatality Rates of the Group of 20 Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Deaths per 100,000 population</th>
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<tbody>
<tr>
<td>South Africa</td>
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<tr>
<td>Saudi Arabia</td>
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<tr>
<td>Russia</td>
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<td>Brazil</td>
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<tr>
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<tr>
<td>Argentina</td>
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<td>Germany</td>
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<td>Japan</td>
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<td>Middle-income Countries</td>
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<tr>
<td>High-income Countries</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Deaths per 100,000 population
Range of Highway Fatality Rates – International Comparison

- South Africa
- Russia
- Saudi Arabia
- United States
- Australia
- Japan
- United Kingdom

Per 100,000 population
2006 or more recent
Range of Highway Fatality Rates – State Comparison

- Mississippi
- Oklahoma
- Missouri
- Texas
- California
- New Jersey
- Massachusetts

Per 100,000 population
2007
State by State Progress

CHANGE IN 3-YEAR AVERAGE NUMBER OF FATALITIES FROM 2003-2005 TO 2006-2008
Safety Trends in The USA

- 37,261 in 2008 about 34,000 in 2009: still too many – 95 per day!!!
- Stagnant in terms of the absolute number until 2007 – multiple reasons why fatalities fell the last three years
- Traffic crashes are the LEADING CAUSE OF DEATH OF 3- to 34-year-olds in the US
Major Highway Safety Challenges

- Rural roads:
  - 60% of fatalities are rural – most on 2-lane roads
  - Half are off the state highway systems
  - Data problems magnified in rural areas
    - Roadway inventory and crash data
    - Lack of geo-coding
  - Sparse rural population; yet large number of roads

- Pedestrian/bicycle fatalities – 14% of total

- EMS and proximity of health facilities

- Enforcement and law limitations

- DRIVER BEHAVIOR
National Behavioral Concerns: % of Fatalities Related to

- Speeding: 30+ %
- Impaired drivers: 32%
- Unbelted fatalities: 50%
- Unlicensed/revoked drivers: 15%
- Distracted: 16% and growing
Emerging Highway Safety Trends to Watch

- Motorcycle deaths: 13% of total and double-digit annual growth
- Large truck related fatalities: 13% of total and truck VMT growing faster than auto VMT
- Aging driving population
- Downsizing of passenger cars; increasing size and number and travel of trucks
- Declining state and federal resources ($)

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Proven Roadway Countermeasures

- Rumble strips and stripes – edge line and centerline
- Pavement Safety Edge
- Median cable barriers
- Roundabouts
- Yellow clearance intervals
- Pedestrian refuge areas and walkways
- Truck & bicycle separate lanes
- Road safety audits and follow-up actions
Proven Behavioral Countermeasures

- **Enforcement**
  - Automated speed enforcement (e.g. Australia/ France/UK/ in the USA: IL, MD, WA)
  - Sobriety checkpoints
  - Drunk driving – random breathalyzer (Australia), alcohol interlock for first offenders – 12 states
  - Primary Seat Belt and laws – 30 states
  - Cell phone and texting bans – 26 states

- **Education** (Lessons from Europe and Australia)
  - Well-advertised and strictly enforced laws with strict penalties
Federal Safety Reauthorization

Position of the State DOTs

- Congress should adopt an aggressive national goal
  - TOWARDS ZERO DEATHS (TZD): halve fatalities in 2 decades leading to elimination of highway deaths
- Call for a National Commission and a White House Conference
- Enhance federal investment and safety funding that is flexible, goal-oriented and performance driven
- Enhance the State Strategic Highway Safety Plans
- Support tougher laws and better adjudication
- Enhance data collection and sharing
- Enhance RD&T
- Safety improvements in vehicles and drivers
How Will The USA Cut in Half Fatalities In Two Decades???

- Behavioral
  - Motorcycle helmet laws in every state – 1500 lives saved per year (NHTSA)
  - Primary seat belt laws in every state – 1000 plus lives saved per year (NHTSA)
  - Alcohol interlocks mandated on first offenders in every state – 3000 lives saved per year (30% are repeat offenders)
  - Aggressive and automated speed enforcement – 1000’s of lives per year

AASHTO
The Voice of Transportation
How Will The USA Halve Fatalities In Two Decades (continued)???

- Vehicle:
  - **Electronic stability control** on all vehicles sold after 2012 – 5,000 lives saved from the base (NHTSA)
  - **SUV/small truck rollover** roof crush standards – X?
  - **V to V and V to I communication mandated** – 1000’s potentially
  - **Other safety features** (IIHS):
    - Lane departure: 10,000 max
    - Adaptive headlights: 2,500 max
    - Forward collision warning: 7,000 max
    - Blind spot detection: 400 max
    - Brake assist: 3,000 max
How will the USA halve Fatalities in two decades (continued)?

- **Infrastructure:** 1000’s of lives saved from the base (anecdotal)
  - **Pervasive protection/prevention for lane departures:** e.g., median cables; centerline and edge line rumble strips and stripes; bright/large chevrons on dangerous curves
  - **Intersection improvements:** e.g., roundabouts
  - **Lane separation:** bikes and trucks and cars

- **Driver Licensing:** focus on the old, young and un-licensed
How will the USA halve Fatalities in two decades (continued)???

- Safety culture change
- EMS – effectiveness (E-911; automated crash notification)
- Implementation of state and local strategic highway safety plans with targeted reduction strategies/resources and share ownership of the outcomes
- Partnerships – HEALTH; Partnerships – LOCALS; Partnerships – SPECIAL INTERESTS
Bottom Line

- We know a lot about the causes of highway traffic deaths and serious injuries, and we have some very good countermeasures, but...

- **We need:**
  - *Political will and leadership* at all levels of government to overcome institutional and policy challenges
  - *To further demonstrate the link between traffic deaths and health, other governmental, and personal costs* to support the message on highway safety needs
  - *To share a common vision!!*
Key Lessons for the World

- Top leadership is essential
- Driving must be considered a privilege rather than a right
- Partnerships across disciplines and across levels of government are essential
- Fatality reduction must become a shared value, shared goal and shared responsibility
- We can learn from each other on effective roadway and behavioral countermeasures
- We must implement best practices across the nation
- Let’s unite in the Decade for Action
Some Key AASHTO/GHSA Safety Related Publications

Highway Safety Manual (AASHTO)

NCHRP series 500 guides (TRB)

Countermeasures that Work (GHSA)
Thank You—

Muito obrigado

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