Chicago Metropolitan Agency for Planning

Chicago Region Highway Safety Analysis – 2007 Update

Presented September 28, 2007
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Highway Safety Analysis

- Update of 2005 analysis
- Collaboration with IDOT and other partners using newly available data
- Response to federal safety initiatives
- This and future data to support regional and state programming and local safety initiatives

Aspects of Highway Safety

- Traveler Behavior – Human Factors
- Roadway and Roadside Characteristics
- Vehicle Characteristics and Performance
- Environment: Weather, Visibility

Approaches to Highway Safety

- Reduce Crash Risk
  - Transportation Perspective: per Million VMT or per Million Entering Vehicles
  - Public Health Perspective: per 100,000 people
- Reduce Crash Severity
  - Focus on Fatal and Incapacitating Injury Crashes
- Reduce Exposure to Risk
  - Promote alternatives to automotive trips
  - Promote local, shorter trips

Regional Impacts

- Primary: Fatalities and Injuries
  - Fatal Crash Every 17 Hours, 50 Minutes
  - Injury Crash Every 9 Minutes, 51 Seconds
- Secondary: Economic Costs of Crashes
  - Property Damage
- Tertiary: Incidents and Delays
  - Crash Every 1 Minute, 46 seconds

Regional Highway Casualties: 2002 - 2005

Injury Severity	2002	2005	% Change
Injury Reported, Not Evident	38,296	31,710	-17.2%
Non-Incapacitating Injuries	36,453	32,842	-9.9%
Incapacitating Injuries	11,061	10,515	-4.9%
Fatalities	675	629	-6.8%
Total Injuries and Fatalities	86,485	75,696	-12.47%

Regional Highway Casualty Rates

Measure	2002	2005	% Change
Fatalities per Hundred Million VMT	1.15	1.04	-9.3%
Fatalities per Hundred Thousand Population	8.12	7.44	-8.3%
Non-Fatal Injuries per Hundred Million VMT	145.58	124.00	-14.8%
Non-Fatal Injuries per Hundred Thousand Population	1,032.39	888.43	-13.9%

Regional Highway Crashes: 2002 - 2005

Most Harmful Event in Crash	2002	2005	% Change
Property Damage Only Crashes	250,542	243,419	-2.8%
Injury Crash	58,853	53,324	-9.4%
Fatal Crash	606	579	-4.5%
Total Crashes	310,001	297,322	-4.1%

Adopted Strategies

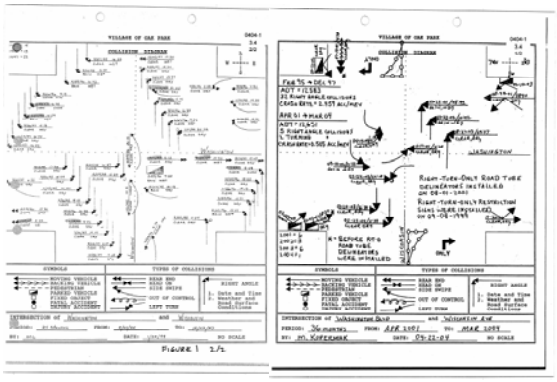
- Section 3.3.2.2 of Updated 2030 RTP
  - Information Systems
  - Highway Rail Crossing Safety
  - Intersection Safety (e.g. Signal Conspicuity, Red-Light Cameras, Sight Distances, Design Innovations)
  - Increase Large Truck Safety
  - Reduce Roadway Departure: Forgiving Design on High-Speed Facilities, Maintain Low Operating Speeds in Urban/Suburban Settings
  - Improve Safety of Vulnerable Users
  - Hazard Elimination
  - Special Attention to Children, Seniors, and People with Disabilities

More Adopted Strategies

- Section 5.4 of Updated 2030 RTP: Pedestrian Safety
  - Control Excessive Speeds
  - Sidewalks
  - Landscaped Medians
  - Reduce Exposure by Minimizing Crossing Distances
  - Appropriately Timed Signals
  - Illumination
  - Hazard Elimination
  - Accommodate Bicycles with Bicycle Facilities
  - Accessible Public Rights of Way

Importance of Community Approach

- Community-wide Crash Data
- Local Traffic Patterns
- Community Needs and Concerns

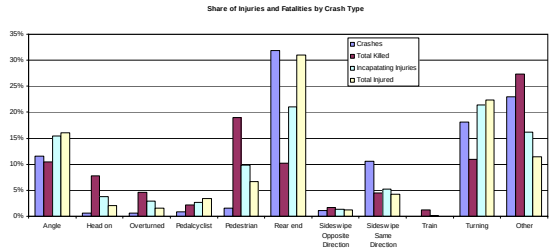


Importance of Community Approach

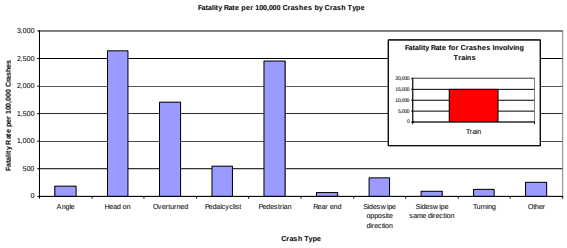
Our Support:

- State and Regional Data Collection
- State and Regional Data Analysis
- Safety Program Funding

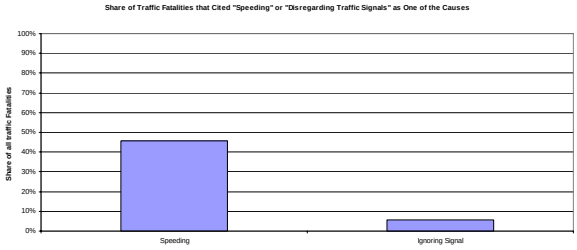
Regional Crash Types



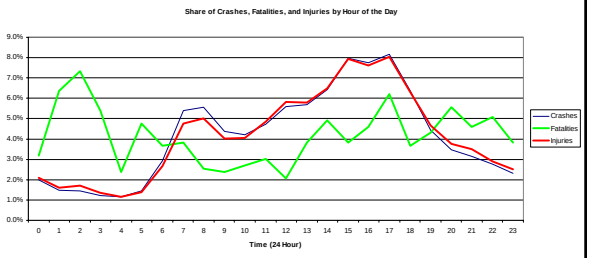
Crash Severity by Type



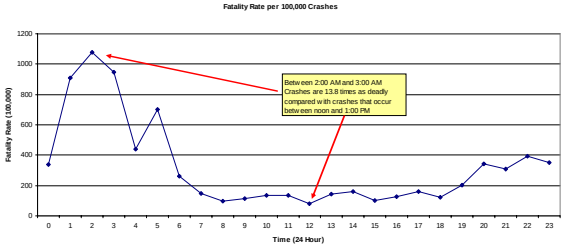
Share of Fatalities by Two Causes



Share of Fatalities by Time of Day



Night-time Crashes Are Deadly



CMAP Highway Safety Analysis - 2007

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Thank You