



Intersection Safety Outreach Toolkit

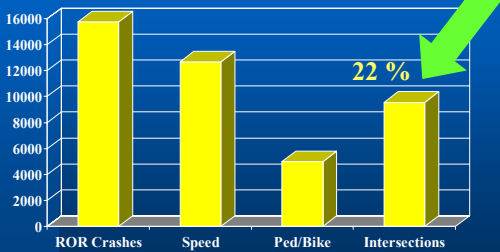
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Intersection Safety

- Each year more than 2.8 million intersection crashes (over 45% of all reported crashes)
- About 8500 fatal crashes (23%)
- 1.1 million injury crashes (over 50%).
- About 9,500 fatalities



Safety Situation - 2001



27% in Indiana

Purpose of Toolkit

- To enhance communications with the media, decision-makers and the general public about intersection safety issues.



Primary Audience

- DOT/ chief administrative officers
- Mayors, local officials
- Traffic and safety engineers
- Law enforcement officers
- Traffic and safety organizations



Why an Intersection Safety Toolkit?

- Identified in the *National Agenda for Intersection Safety*
 - Strategy 11: Marketing and Communications
 - Are we getting the correct message to the public?
 - Are we communicating factual information?
- Turnover of local, state transportation CAOs
 - CAOs may not have a transportation/safety background
- FHWA, AASHTO and ITE Safety Plans

Intersection Topics Covered

- | | |
|--|----------------------------------|
| 1. National Intersection Safety Problem | 7. Red-Light Running |
| 2. Basic Countermeasures | 8. Red-Light Cameras |
| 3. Pedestrian Safety | 9. Work Zone Intersection Safety |
| 4. Human Factors | 10. Myths vs. Reality |
| 5. Enforcement | 11. Resources |
| 6. Traffic Control Devices: Their Use and Misuse | |



Topic 1: National Intersection Safety Problem

- Provide basic statistics for intersection safety
 - 8,500 fatalities
 - 1.6 million injured persons
 - 1.8 million property damage only crashes
 - Cost to society: \$40B every year
 - No substantive change in intersection related crashes in 25 years
- Demonstrate that intersection safety is a multi-faceted public health issue



Topic 2: Basic Countermeasures to Enhance Intersection Safety

- Engineering countermeasures
 - Turn lanes
 - Signals
 - Non-traditional design
 - Pavement conditions
 - Improve sight distance
 - Upgrade/supplement signs
 - Engineering review
- Sustained enforcement
- Driver licensing and education



Topic 3: Intersection Pedestrian Safety

- Provide data
 - More than 1 in 5 fatalities occur at intersections
 - Average annual pedestrian fatalities about 5,475
- Causes
 - Human factors
 - Alcohol
 - Speed
 - Engineering design
 - Traffic operations



Intersection Pedestrian Safety Solutions

- Enforcement
 - Motorist and pedestrian compliance
 - Reducing excessive speeding through intersections
- Education and public awareness
- Engineering Improvements
 - Pedestrian signal timing/signals
 - Lighting
 - Crosswalks
 - Barriers/refuge islands
 - Signs



Topic 4: Human Factors

- **Understanding human factors is crucial in the design, development, evaluation and operation of intersections**

- Driver ability to see signs, markings and signals
- Fatigue
- Risk taking
- Older/younger drivers
- Complex intersection designs
- Signal timing
- Roadway characteristics



Topic 5: Intersection Safety Enforcement

- **Reasons for violations**

- Frustration/impatient drivers and pedestrians
- Congestion
- Signal Timing

- **Sustained enforcement**

- Traditional
- Automated

- **Resource allocation**



Topic 6: Traffic Control Devices: Use and Misuse



- **Scenario: general public, mayor wants a stop sign or traffic signal that does not meet warrants**

- **Need to demonstrate in a non-technical way**
 - Functions
 - Characteristics
 - How traffic engineers select
 - Typical problems with incorrect placement and installation

Topic 7: Red Light Running Issues

- **Provide basic statistics on Red Light Running**

- 40 percent of crashes at signalized intersections
- Cost to Society: \$14 B every year
- 880 fatalities
- 181,000 injured persons

- **Demonstrate that RLR can be reduced through education, engineering and enforcement strategies.**



Topic 7: Red Light Running Issues

- **Engineering Safer Intersections to Prevent Red Light Running**

- Spring 2003
- Funded by FHWA
- Developed in partnership with ITE



Topic 8: Red Light Cameras

- **Communicate results**
- **Successful programs must**

- Supplement traditional law enforcement
- Be fair
- Have law enforcement review of photographs
- Include extensive public education
- Program signs
- Engineering reviews

