

Strategic Highway Safety Plan For Indian Lands

MISSION: Implement effective transportation safety programs to save lives while respecting Native American culture and tradition by fostering communication, coordination, collaboration, and cooperation.

VISION: All transportation users arrive safely at their destinations.

GOAL: To prevent and reduce the number of people killed and injured in transportation related crashes.

Introduction

A Strategic Safety Plan should define the procedures, organization, and process for managing the attributes of the transportation facilities, the driver, and the vehicle. The objective is to achieve the highest level of transportation safety by integrating the work of disciplines and agencies involved. These disciplines include the research, data collection, planning, design, construction, operation, and maintenance of the transportation infrastructure (engineering); injury prevention and control (emergency response services), health education; and those disciplines involved in modifying transportation user behaviors (education and enforcement). In order to manage this complex system and to achieve the level of integration necessary to meet the highest levels of safety, two key components are needed. The first is an organizational structure that will allow for the integration of the entities involved in transportation safety. The second is a formal management system that will direct the activities of these entities in a manner that will efficiently achieve the mission and vision.

All parts as described within this plan are necessary, but there is flexibility to customize the structure and process according to external and internal factors. It is anticipated that the plan periodically will be updated and otherwise revised. Focus groups may be used to further define elements, particularly human factors of the safety management system. It is anticipated that full implementation of the system will occur in the next five years.

Background

Traffic deaths and injuries severely impact the quality of life in Indian Country. The primary “measuring sticks” for success of this plan is reductions in the number of fatalities and injuries that occur because of motor vehicle crashes.

On reservations, the number of fatal motor vehicle crashes per year increased 52.5 percent, (from 181 fatal crashes in 1975 to 276 fatal crashes in 2002), while the number of fatal crashes in the nation declined 2.2 percent, (from 39,161 fatal crashes to 38,309 fatal crashes).¹ In 2003, more than 320 reported traffic fatalities occurred on Indian Reservation Roads (IRR) per the US Department of Transportation (US DOT) Fatal Analysis Reporting System (FARS). Furthermore; when identifying geographical areas, more than 80 percent of Indian reservation fatalities occurred within the borders of five States (Arizona – 39%, Montana – 15 %, South Dakota – 11 %, New Mexico – 10%, and Idaho – 9%).² For example in Montana, according to the 2000 census, Native Americans account for 6.2 % of the State population, while the yearly percent of Native American highway fatalities varied between 14% and 19.5% of the total Statewide highway fatalities between 1993 through 2002.³ While these statistics are alarming, anecdotal information indicates that underreporting is highly likely and that the statistics may be considerably worse.

Due to the lack of data available for many areas, traffic safety and roadway engineering-related statistical analysis becomes more difficult. With timely and accurate tribal collision data, trends and other related areas of traffic safety concerns can be easily and confidently identified.

“Since the majority of residents on Indian reservations are American Indians, it is reasonable to assume that the majority of crashes that occurred in the Indian land involved American Indians. However, as businesses operating on the Indian Reservations increase, it is of interest to know whether the racial composition of fatally injured people has changed over the years.”⁴ Fatalities are only a small part of the total injury picture. For each injury-related death, in general, there are 19 injury hospitalizations and over 300 injuries that require medical attention. There is no current data system to track this information in Indian Country. Each year, one in four Americans will have a potentially preventable traffic related injury serious enough to require medical care. These injuries account for almost 10% of all physician office visits and 38% of all emergency visits. For an individual, these injuries vastly diminish quality of life. For society, injuries pose a significant drain on the health care system incurring huge treatment, acute care, and rehabilitation costs. The substantial

¹ Fatal Motor Vehicle Crashes on Indian Reservation 1975-2002 NCSA, April 2004

² Ibid

³ Traffic Safety – Problem Identification FFY 2005 Montana Department of Transportation

⁴ Fatal Motor Vehicle Crashes on Indian Reservation 1975-2002 NCSA, April 2004

impact within the local community relative to medical costs, lost wages, insurance costs, taxes, police, fire and emergency services, legal and court costs as well as property damage is significant.

It is vitally important to provide a safe and efficient transportation system. Therefore the safety partners, when developing the strategies, must strive to ensure transportation systems are as safe as possible through Education, Engineering, Enforcement, and Emergency Response Systems.

Reference

The development and implementation of a safety management system for transportation facilities providing access to and within Indian lands funded under the Federal Lands Highway Program was required by the Transportation Equity Act for the 21st Century. A Final Rule was published as 23 CFR Part 973 effective March 29, 2004 titled "Federal Lands Highway Program; Management Systems Pertaining to the Bureau of Indian Affairs and the Indian Reservation Roads Program." This Strategic Plan is a guiding document that establishes an overall direction and identifies emphasis areas that should reduce crashes in Indian Country. The specific requirements of the Final Rule will be met by a companion implementation plan that will identify actions to be taken to address the emphasis areas contained herein.

Safety Partners

The safety partners include tribal, federal, state, local and private entities representing enforcement, education, engineering, and emergency medical services.

The Safety Management System Implementation Plan was prepared by staff from:

Bureau of Indian Affairs: DOT and Northwest Region

Lummi Nation

Federal Highway Administration: Office of Federal Lands Highway, Office of Safety, and Montana Division

Montana/Wyoming Tribal Leaders Council

Washington State: DOT and Traffic Safety Commission – FARS Manager

Spokane Tribe of Indians

Accountability

For implementations of this strategic plan, it is recommended that the Bureau of Indian Affairs and the Federal Highway Administration establish a Safety Management Steering Committee to work within the Federal Agencies and with the Tribal Governments. This steering committee will be responsible for: ensuring that the intent of this strategic plan is preserved, monitoring of transportation safety statistics in Indian Lands, sharing successes and best practices and for the development of an action specific Safety Management System Implementation Plan. The work of the steering committee will be guided and monitored by the senior leadership of the Bureau of Indian Affairs and the Federal Highway Administration in consultation with Indian Tribal Governments.

Emphasis Areas:

To achieve the goal of the strategic highway safety plan, data driven emphasis areas and strategies to reduce the number of fatal and serious injury crashes have been identified as follows:

- Decision Making Process
- Data Collection
- Run Off The Road Crashes
- Occupant Protection/Child Restraint
- Alcohol/Drug Impaired Driving
- Other Driver Behavior and Awareness
- Drivers Under The Age of 35
- Pedestrian Safety

Incorporated in each of these emphasis areas is the need for education of elected officials, law enforcement, departments of transportation, and transportation safety advocacy representatives.

To further the effectiveness of this approach, a comprehensive and coordinated, safety initiatives of engineering, enforcement, education, and emergency response will be developed and implemented for each emphasis area. *To that end, priority will be given to funding and staffing these safety initiatives and projects.*

Decision Making Process

Background

Effective decision-making requires timely/accurate data, sound planning, and coordinated technologies.

A complete traffic records system is necessary for planning, problem identification, operational management or control, and evaluation of a tribe's transportation safety activities. The system should include, or provide for, information for all IRR transportation facilities. This is basic to the implementation of all transportation safety countermeasures and is the key ingredient for their effective and efficient management. Therefore, the management system will provide a strategic approach to project selection to maximize limited resources. Systems currently in place must be assessed and improved to meet the needs of our safety professionals. Hence, to effectively implement the program sufficient planning resources will be required.

Understanding and making optimal use of information technology is a critical challenge facing transportation safety professionals. Knowing the how, when, where, who, and why crashes have occurred is the foundation of a comprehensive traffic safety analysis system. Crash, traffic, citations, medical, judicial, and driver records must be available so proper decisions can be made and effective safety policies and projects can be developed and implemented.

Goal:

Develop a system that will support the decision-making process for safety policies and project selections.

Strategies:

- Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- Expand the Tribes' role, funding, and other resources to improve safety, and application of appropriate geometric, roadside, and traffic control devices.
- Provide transportation safety training and technical assistance to tribal personnel.
 - Expand the Tribes' role, funding, and other resources to improve safety, and application of appropriate geometric, roadside, and traffic control devices.
 - Assist Tribes in the development and implementation of their own safety management system as requested.

- Encourage and work with Tribes to develop highway safety improvement program reports.
- Increase coordination, communication, collaboration and cooperation among various public and private organizations that share responsibilities for highway and transportation safety.
- Institutionalize safety conscious planning to include safety criteria in system planning and programming at the tribal, federal, state and local level.
 - Make more effective use of the existing data and inventories.
 - Insure data linkage and sharing among safety partners.
- Improve congressional and tribal government awareness of critical highway safety issues.
- Promote and conduct road safety audits.
- Conduct traffic records assessments and implement recommendations.
- Explore the use of alternative transportation facilities especially for elders.
- Ensure the balance between industry standards and community values for all transportation modes.
- Establish roles and responsibilities of BIA in implementing the SMS.
- Conduct regulatory review of safety policies related to transportation facilities development.

Data Collection

Background

Analyses of existing data sources strongly suggest underreporting of crashes, injuries and fatalities on Indian lands.

Key to an effective, data driven decision-making process is the collection of timely and accurate data collection, analysis processes, accessibility, distribution and systems. These systems include the linkage of factors including crash, roadway, driver, medical, Crash Outcome Data Evaluation System (CODES), enforcement, conviction, and homeland security data, etc.

Goal:

Develop data collection procedures that will encourage coordination with other entities and establish a data collection process and storage to be used in project decision-making.

Strategies:

- Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- Develop a simplified data reporting system.
- Complete a roadway inventory for each tribe including critical safety data.
- Work in cooperation with safety partners to improve the timeliness and accuracy of data, with an initial focus on FARS.
 - Develop an education campaign that will raise the importance of collecting accurate and timely crash data with law enforcement and tribal leadership.
 - Examine and revise BIA crash data collection and submission policies.
 - Explore the possibility of modifying BIA tribal contracts with law enforcement to include a provision requiring more accurate and timely crash reporting, including a comprehensive annual report.
 - Develop modified FARS reporting form for use exclusively on Indian Lands.
 - Revise BIA policy on reporting FARS data to address the current Freedom of Information Act (FOIA) request process.
 - Expand capability of locating crashes by the use of such tools as Geographical Information System (GIS).
- Encourage tribal law enforcement agencies to submit collision reports to the appropriate state agency using that state's standard collision form where feasible.

Run off the Road Crashes

Background

The primary objective is to identify cost effective strategies that reduce unintentional lane departure as well as alert the driver should a departure occur. The secondary objective is to assist the driver in returning to the travel lane safely and minimize the consequences of departure by creating clear zones along the roadside. The percent of fatal crashes on reservations that involved a single vehicle was almost twenty-six percent higher than the percentage in the nation ⁴(73% to 58%, respectfully).

Goal 1:

Identify cost effective strategies that reduce unintentional lane departure and alert driver should a departure occur.

Strategies:

- Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- Identify corridors, locations, and/or roadway/roadside features with a disproportionately large number of actual and/or potential for run-off-road and head-on crashes.
- Develop standard operating procedures for the implementation of roadway safety system-wide improvements as documented in Implementation Guides of NCHRP 500 series, such as:
 - Centerline rumble strips and stripes
 - Shoulder rumble strips and stripes
 - All weather pavement markings
 - Roadside barriers vs. longitudinal barriers
 - Elimination of roadside hazards
 - Traffic signs and delineators
 - Shoulder enhancements
- Provide selective enforcement specific to identified problems or needs.
- Develop and provide transportation safety training for technicians, planners, and other professionals whose goal is to improve transportation safety.
- Develop processes and guidance for routine road safety audit field reviews.
- Implement effective safety maintenance procedures and practices.

⁴ Ibid

Occupant Protection

Background

Proper use of passenger restraints is the single most cost effective and immediate means of reducing death and injury. In 2002, on Indian reservations, 83 percent of the fatally injured occupants were not restrained at the time of the crash as compared to 62 percent nationally.⁵

The effectiveness of safety belts and child restraints for reducing injury and preventing death is well documented. Child restraint devices are neither as easy to use nor to enforce as safety belts, but they are essential to protecting children in the event of a crash.

Goal:

Increase the use of Occupant Protection to the National Standard.

Strategies:

- Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- Work together with Tribal Governments to develop public information and education campaigns for the proper use seat belts and child restraints i.e. cradleboard versus DOT approved child restraint systems.
 - Provide training and technical assistance on correct use of child passenger safety seats through law enforcement agencies, emergency medical services personnel, health care providers, and educators, pediatric nurses, foster care and human service social workers, child care providers, firefighter personnel, rural transportation supervisors and transportation safety advocacy representatives.
- Encourage primary seat belt and child restraint laws and enforcement.
- Work with tribal police to provide overtime dollars to conduct “Click-it or Ticket” type enforcement model

⁵ Fatal Motor Vehicle Crashes on Indian Reservation 1975-2002 NCSA, April 2004 Figure 9, page 15.

Alcohol/Drug Impaired Driving

Background

Since 1982, an estimated 65 percent of the fatal crashes on Indian reservations were alcohol-related, as compared to 47 percent nationally. In 2002, approximately 57 percent of fatal crashes were alcohol-related on Indian reservation, as compared to 41 percent nationally.

Goal:

Decrease alcohol related crashes to the National Standard.

Strategies:

- ❑ Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- ❑ Coordinate with existing tribal drug/alcohol intervention programs.
- ❑ Support year round drunk driving enforcement, with special emphasis patrol during national crackdown periods.
- ❑ Develop a strong public information and education campaign to increase driver awareness.
- ❑ Continue training for law enforcement officers, tribal prosecutors and judges.
- ❑ Sponsor efforts to improve cooperation in drunk driver prosecution and adjudication such as increased use of DUI/drug courts in order to reduce recidivism.
 - Analyze the impact of the re-issuance of driver license by tribes of drivers who have lost their license due to DUI.
- ❑ Support initiatives to reduce underage alcohol use and drunk driving.
- ❑ Support rehabilitation programs for offenders.
- ❑ Encourage .08 BAC laws.

Other Driver Behavior and Awareness

Background

Nationally more than 60% of drivers see unsafe driving by others as a major personal threat to themselves and their families. The problem of unsafe driving is becoming more prevalent and is increasing in severity.

Addressing inappropriate or hazardous driver behavior is a critical factor in reducing fatal and serious injury crashes. Unsafe driving behavior may include but is not limited to: aggressive driving, dangerous speed, unsafe vehicles, distracted driving (such as cell phone use) drowsy and fatigued driving, and unlicensed driving (suspended, revoked, or never licensed), and unsafe vehicles. Strategies addressing these issues should holistically emphasize the enforcement, engineering, and education aspects.

Goal:

Develop and implement programs to curb hazardous driving behavior.

Strategies:

- ❑ Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- ❑ Continue training for law enforcement officers, tribal prosecutors and judges so that unsafe driving is cited and adjudicated consistently.
- ❑ Develop and implement programs aimed at improving existing vehicle safety.
- ❑ Assist tribes in developing a motor vehicle code as requested.
- ❑ Develop and implement programs aimed at unsafe driving behavior.
- ❑ Define and/or determine the scope and frequency of aggressive driving.
 - Look at existing enforcement strategies to deter this behavior; such as, traffic school, driver insurance reduction classes for older drivers, and driver training for new drivers.
- ❑ Provide for the development of comprehensive traffic safety public information and education programs that are designed to motivate change in unsafe driving behaviors.
- ❑ Work with national partners, advertisers, and media to deliver consistent safety messages.
- ❑ Implement traffic calming techniques.
- ❑ Educate road users (motorized and non-motorized) on how to respond to traffic calming features (i.e. train drivers and pedestrians on what to do when approaching a roundabout).

- Develop and/or adopt existing process for setting realistic speed limits with zero tolerance enforcement.
- Support public information and education campaigns including Native American celebrity spokespersons.
- Develop public information and education campaigns with activities targeting behaviors that endanger the elderly. Employ selective targeting of demographic groups with tailored messages.

Drivers Under The Age of 35

Background

Drivers under the age of 35 continue to be over-represented in fatal and injury crashes. From 1975 to 2002, sixty-three percent of the fatalities in crashes on reservations were under 35 years old compared to fifty-seven percent of the nation's crash fatalities.⁶ The five major contributing factors in fatal crashes in this age group are: speeding, traveling on the wrong side of road, failure to yield, reckless driving, and drinking.

Goal:

Reduce fatalities of drivers under the age of 35 to national standard.

Strategies:

- Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- Encourage the development and use of driver education programs for Native Americans.
 - Provide high-risk driver education programs targeting drivers age 16 – 35 with injury prevention, occupant protection, DUI, speed, and attention messages.
 - Develop public information and education campaigns with activities targeting behaviors that endanger younger drivers. Employ selective targeting of ages with tailored messages.
- Promote the implementation of graduated licensing.
- Enforce laws prohibiting underage drinking, serving, and purchasing of alcohol.

⁶ Ibid

Pedestrian Safety

Background

Pedestrian safety is a problem both nationally and on Indian Lands accounting for fourteen percent of persons killed in fatal crashes from 1975 - 2002.⁷ To stay true to cultural or historical modes of transportation, pedestrian safety must be considered.

Goal:

Reduce pedestrian fatalities

Strategies:

- ❑ Provide information to elected tribal leaders on the importance of implementing countermeasures to ensure safety.
- ❑ Identify locations with a disproportionately large number of actual or potential for fatal and serious injury pedestrian crashes.
- ❑ Increase enforcement and education in high crash zones.
- ❑ Promote the use of retroreflective materials (roadway and apparel).
- ❑ Identify and implement engineering countermeasures for pedestrian accommodations, such as, separated pedestrian paths, wider shoulders, lighting, and designated crosswalks.
- ❑ Work with other agencies to improve overall pedestrian circulation.
- ❑ Develop education programs for both drivers and pedestrians of all ages.
 - Emphasize School zone safety and enforcement.

⁷ Ibid