Alaska's Strategic Highway Safety Plan

REVISION

prepared for

Alaska Department of Transportation and Public Facilities

Toward Zero Deaths

Everyone Counts on Alaska's Roadways

September 2013

Welcome

As Alaska continues to make progress on its journey Toward Zero Deaths, I want to remind all Alaskans to continue your efforts to improve safety on our roads. Whether you are getting in your car to drive to work, riding your bicycle to school, or crossing the street to go to the movie, it should be our goal for everyone to make their journey safely because everyone counts on Alaska's roadways.

The Alaska Strategic Highway Safety Plan (SHSP) provides a framework of strategies and actions representing a comprehensive, multidisciplinary approach to reducing our most serious highway safety problems. In this 2013 Revision to the SHSP, formerly known as the Strategic Traffic Safety Plan (STSP), we have taken strides to reorganize the framework to clearly involve the 4 Es of safety, ensuring all aspects of highway safety from engineering, enforcement, education, and emergency medical services are fully committed to the task of highway safety. We also have integrated guidance from the Federal transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21) to ensure Alaskan highway safety programs will meet or exceed requirements, enhance our data systems, and strengthen performance metrics.

I want to thank the many safety stakeholders and leaders from across the State who have continued their involvement in the SHSP by providing input on strategies and actions, determining appropriate performance metrics to measure our progress, and organizing events and meetings. You may never know whose life you save or what injury you prevented, but know your efforts make a difference.

Let us continue this remarkable journey and remember again what other goal could we have on our roadways but zero!

Patrick J. Kemp, P.E.

Commissioner,
Alaska Department of Transportation and Public Facilities

Introduction and MAP-21 Overview

The Alaska Strategic Highway Safety Plan (SHSP) continues the momentum built from the 2007 Alaska SHSP which itself was inspired by the 1997 release of a national SHSP by the American Association of State Highway Transportation Officials (AASHTO). AASHTO encouraged states to take aim at significant highway safety challenges through the implementation of strategies targeting specific problems. In addition, the passage of the 2005 Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) strengthened Alaska's desire to develop its own SHSP. The SHSP was known briefly as the Strategic Traffic Safety Plan from 2011 to 2013 as part of marketing efforts, however, to be consistent with the naming of SHSPs at the national level and in other states, Alaska reverted back to the SHSP name.

The Alaska SHSP was developed in consultation with Federal, state, local, and private sector safety stakeholders and used a data-driven, multidisciplinary approach involving the 4 Es of safety – engineering, education, enforcement, and emergency medical services, to identify the plan's statewide goals, objectives, and key emphasis areas of Driver Behavior, Roadways, and Special Users.

The passage of the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21) reinforced the principles of targeted safety planning with the establishment of performance measures with respect to fatalities, serious injuries, and associated rates. In addition, MAP-21 also introduced new rules pertaining to older drivers and high-risk rural roads. MAP-21 also emphasizes cooperation between agencies involved in highway safety by requiring the alignment of highway safety-related plans across the 4 Es. Data is used to inform the status of strategies, crash trends, and interagency data integration. A subcommittee of the Alaska Traffic Records Coordinating Committee (ATRCC) is responsible for overseeing the application of data in the SHSP. The 2013 Alaska SHSP Revision was developed to incorporate guidance from MAP-21 and to ensure a framework is in place for the next complete update of the SHSP.

In the 2013 Revision, Alaska not only has incorporated Federal guidance but has included new strategies to strengthen enforcement initiatives and to incorporate electronic information programs.

Alaska SHSP Emphasis Areas

The following are the emphasis areas included in the SHSP and the problem areas addressed by each.

Driver Behavior –
Impaired Driving
Young Drivers
Older Drivers
Occupant Protection

Roadways –
Lane Departures
Intersections
Animal-Vehicle Collisions

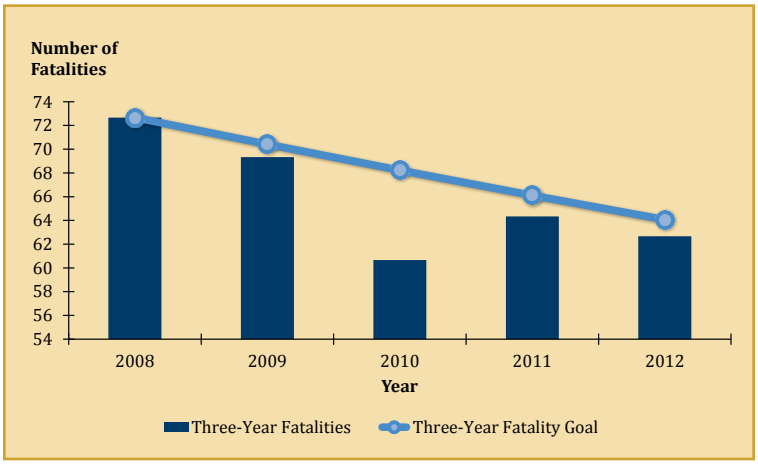
Special Users –
Crashes involving Pedestrians, Motorcyclists, and Bicyclists

Progress to Date

While the overall goal in Alaska is to move Toward Zero Deaths, in the SHSP Update from 2012, the State adopted an interim goal to reduce fatalities and serious injuries by one-half by 2030, providing a benchmark for progress. To achieve the interim goal, Alaska must achieve an average 3.1 percent annual reduction in three-year average fatalities and serious injuries starting from a baseline year of 2008, the last year with complete and verified fatality and serious injury data at the time.

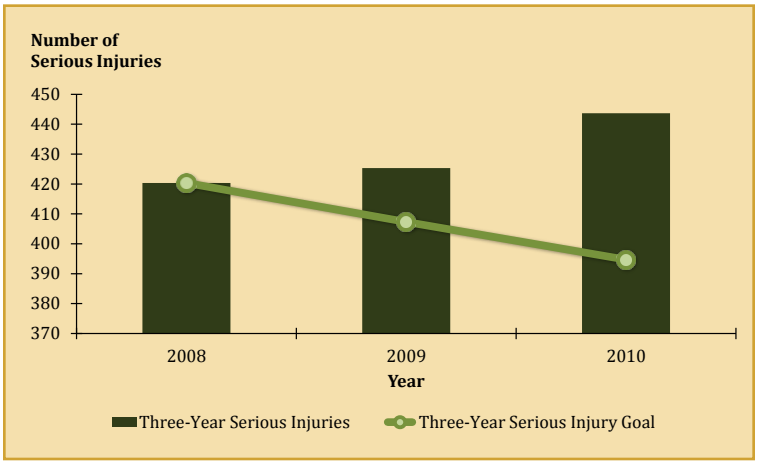
Since 2008 Alaska has achieved improvements in highway safety but there remains room for improvement. While the three-year average number of highway fatalities has declined and is consistently lower than the established goal, the three-year average number of serious injuries has risen and is not meeting the desired 3.1 percent annual reduction. While reducing fatalities is a significant achievement, we must not forget the impact of serious injuries – these injuries are life changing for everyone involved.

Figure 1. Three-Year Average Annual Fatalities
2008 to 2012



Source: Fatality Analysis Reporting System.

Figure 2. Three-Year Average Annual Serious Injuries
2008 to 2012

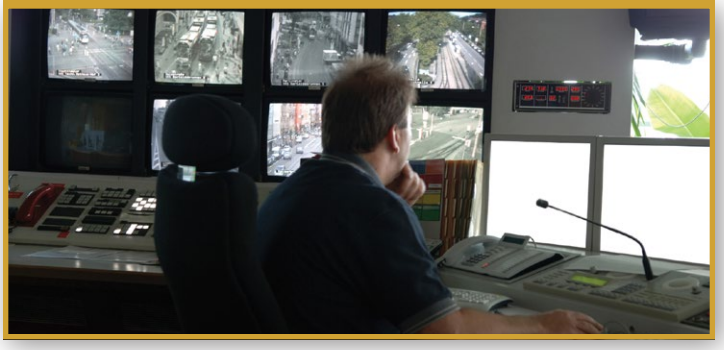


Source: Highway Analysis System.

Organization of Emphasis Areas

After consulting the emphasis area co-chairs, the strategies and actions of the SHSP were reorganized to provide a simpler structure. Each of the strategies and actions within the three SHSP emphasis areas of Driver Behavior, Roadways, and Special Users now fall under one of the 4 Es of engineering, enforcement, education, and emergency response, or under a fifth E of Evaluation which focuses on crash data integration and application. This organizational framework makes it easier for safety stakeholders to determine which strategies and actions fall within their range of interest. Emphasis area co-chairs also have developed internal performance metrics to ensure the progress of actions in the SHSP.

Engineering



Education

Enforcement

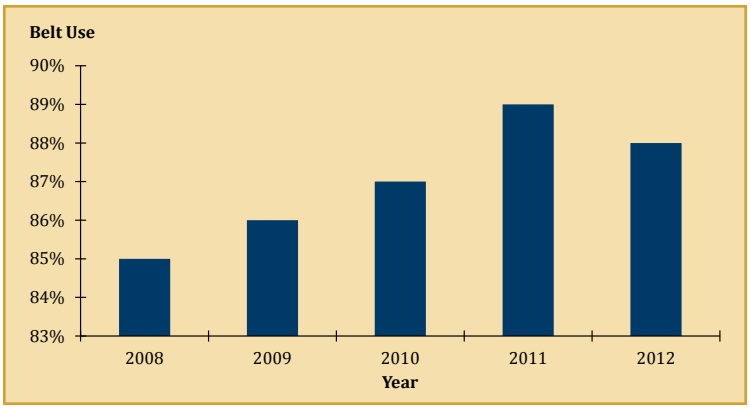
Emergency Response

Evaluation

AWAY
OFF
STAY
PANIC

Emphasis Area:
DRIVER BEHAVIOR

Figure 3. Alaska Belt Use



Source: Fatality Analysis Reporting System.

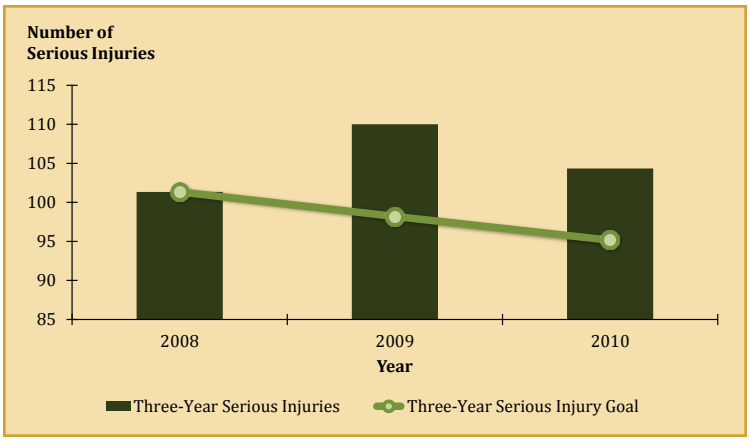
In this 2013 SHSP Revision, the Driver Behavior emphasis area has been expanded to not only target young drivers (under age 20) and impaired driving but also occupant protection use and older drivers (age 65 and older). Ensuring that all drivers and passengers are properly restrained every trip is essential for achieving Alaska's zero fatality goal. Twenty-seven percent of motor vehicle occupants killed in crashes in 2011 were unrestrained. Crashes involving older drivers are being

continued on next page

Figure 4. Impaired Driving
Fatalities (Three-Year Average and Goal)

Source: Fatality Analysis Reporting System.

Figure 5. Impaired Driving
Serious Injuries (Three-Year Average and Goal)

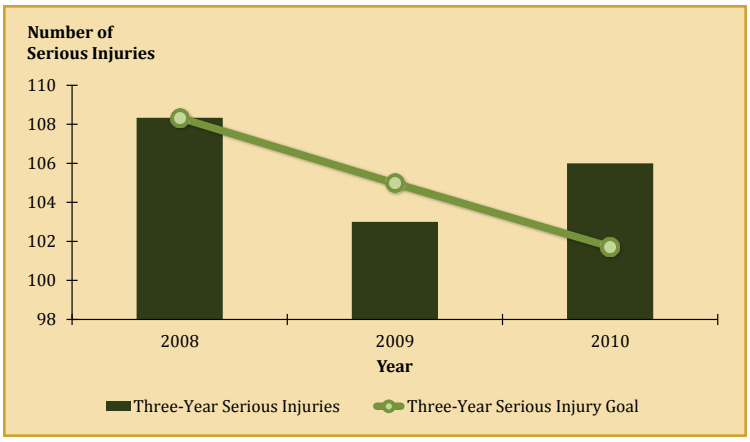


Source: Highway Analysis System.

Figure 6. Young Drivers
Fatalities (Three-Year Average and Goal)

Source: Highway Analysis System.

Figure 7. Young Drivers
Serious Injuries (Three-Year Average and Goal)

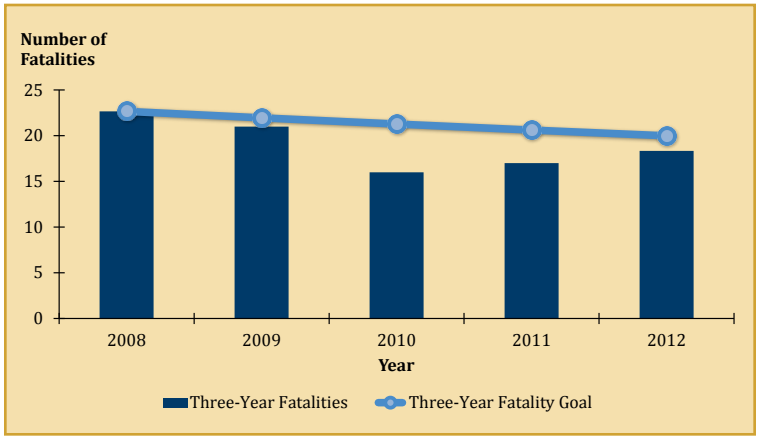


Source: Highway Analysis System.

addressed in the SHSP as a proactive measure. MAP-21 stipulates the SHSP must include strategies related to older driver crashes if the per capita fatality and injury rate for these users of the highway system increases over a two-year period.

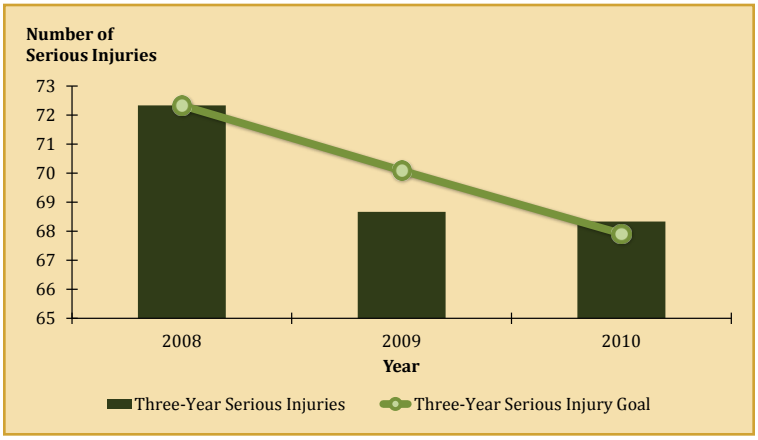
For three of the four factors included in this emphasis area, Alaska is meeting fatality reduction targets. There has been a slight increase in three-year average older driver fatalities. Three-year average serious injuries have increased for each of the four factors. Alaska highway safety stakeholders will need to redouble their efforts within this emphasis area to ensure both fatality and serious injuries targets are met.

Figure 8. Unrestrained Occupants
Fatalities (Three-Year Average and Goal)



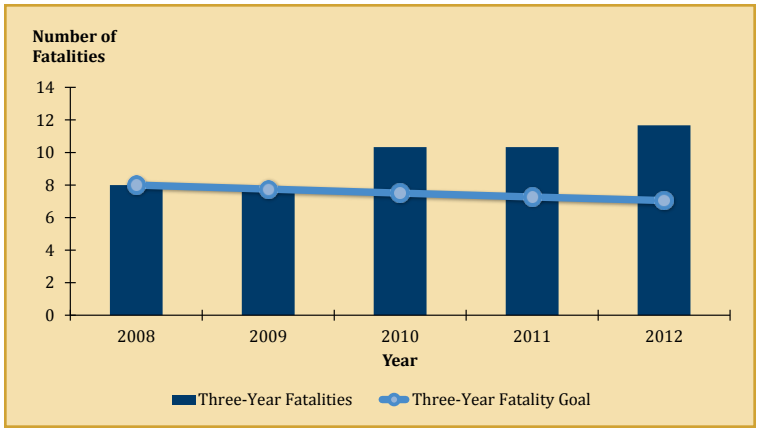
Source: Highway Analysis System.

Figure 9. Unrestrained Occupants
Serious Injuries (Three-Year Average and Goal)



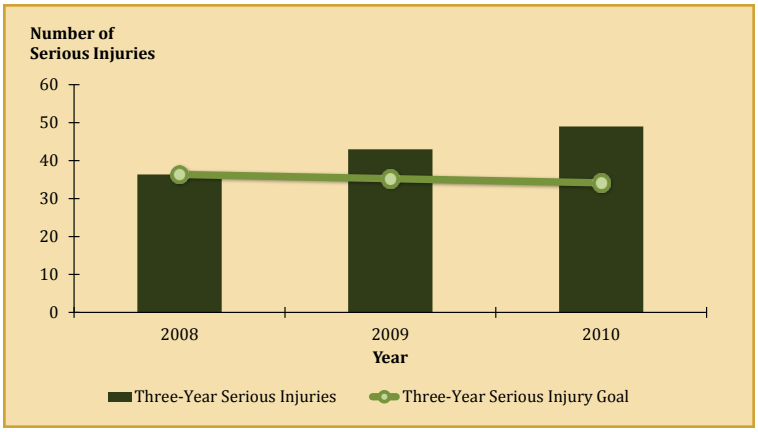
Source: Highway Analysis System.

Figure 10. Older Drivers
Fatalities (Three-Year Average and Goal)



Source: Highway Analysis System.

Figure 11. Older Drivers
Serious Injuries (Three-Year Average and Goal)



Source: Highway Analysis System.

Strategy 1: Strengthen enforcement programs related to driving violations.

Action 1.1

Enhance enforcement for special events and campaigns

Background and Purpose

According to the National Highway Traffic Safety Administration (NHTSA), periodic high-intensity and sustained high-visibility enforcement efforts, supported by a coordinated media plan, are proven effective countermeasures. High-visibility enforcement programs, such as NHTSA's Click It or Ticket seat belt program and the Drive Sober or Get Pulled Over impaired driving campaigns, affect behavior through general deterrence, by increasing the public's perception that people who violate the law will be ticketed, arrested, convicted, and punished, and thereby persuading them to adhere to the law.

Objective

Increase coverage of enforcement during special events and campaigns.

Lead Agency

Alaska Department of Public Safety

Action 1.2

Effectively integrate traffic enforcement with other enforcement activities

Background and Purpose

A number of law enforcement agencies across the United States have made efforts to combine location-based crime and traffic data to establish effective and efficient methods for deploying law enforcement and other resources. Geomapping techniques have been used to identify areas with high incidences of crime and crashes. Based on this information, enforcement deployment can play a dual role in fighting crime and reducing crashes and traffic violations.

Objective

Implement a framework to combine crime and highway safety efforts in Alaska communities and train officers on this framework.

Lead Agency

Alaska Department of Public Safety

Action 1.3

Increase the number of officers trained in standardized DUI/drugged driving detection and apprehension, i.e., Standard Field Sobriety Test (SFST), Drug Recognition Evaluation (DRE), and Advanced Roadside Impaired Driving Enforcement (ARIDE)

Background and Purpose

Law enforcement training on Standard Field Sobriety Tests (SFST), Drug Recognition Evaluation (DRE), and Advanced Roadside Impaired Driving Enforcement (ARIDE) improves the identification, arrest, and conviction of DUI/Drug driving offenders. Two subjects are included under this strategy; the first is phlebotomy training for law enforcement and the second is driving on a revoked license.

1. A law enforcement phlebotomy training program could enhance an officer's ability to collect evidence in a timely manner when an independent test has been requested from a violator at government expense or a search warrant has been obtained for a blood draw. This program is expected to alleviate time restraints placed on law enforcement officers due to remote locations or delays created by a hospital or other medical care provider when they are unable to draw blood within the timeframe an officer needs. It is expected this program would enhance evidence collection, would reduce the time required to process a DUI by at least one hour, and could potentially reduce the overall costs to individual departments for blood draws.
2. Removing the drivers license for DUI is a major component of the enforcement toolkit designed to prevent impaired driving. However, current Alaska law does not provide a penalty for driving while the license is revoked (DWLR) severe enough to deter driving, much less driving impaired. Enhancing the penalties attached to DWLR could prevent impaired driving by ensuring those persons do not drive at all because they fear the risk of arrest and the ensuing penalties for DWLR. Part of this discussion will ultimately need to include enhancement of the IID program.

The purposes of this strategy is to consider the implementation of a phlebotomy training program, develop and expand other law enforcement training programs for increased detection and apprehension of drivers impaired by alcohol and other drugs, and to seek enhanced penalties for DWLR.

Objective

Enhance DUI/Drugged driving evidence collection and preservation practices, increase the penalties for DWLR, and reduce the incidence of DUI/Drugged driving.

Lead Agency

Alaska Department of Public Safety

Action 1.4

Enhance enforcement in safety corridors

Background and Purpose

A Designated Safety Corridor is a segment of a state highway that has been identified as having a higher than average incidence of fatal and serious injury crashes, and the Commissioners of Transportation and Public Facilities and Public Safety have agreed to provide funding for effective education, enforcement, engineers, and support emergency response agencies for those sections of

Strategy 1: Strengthen enforcement programs related to driving violations.

road. Currently, the Seward (May 2006), the Parks (October 2007), the Knik/Goose Bay Road and the Sterling (both in July 2009) are the four designated Safety Corridors in Alaska.

Typical actions taken in these corridors to address safety include more frequent enforcement, low-cost engineering improvements and education efforts such as media events, brochures, and poster distribution.

Objective

Increase frequency of enforcement patrols in safety corridors.

Lead Agency

Alaska Department of Public Safety

Action 1.5

Continue joint-jurisdictional enforcement activities

Background and Purpose

Opportunities exist to coordinate enforcement campaigns between law enforcement agencies across Alaska, ensuring safe driving practices by all Alaskans. These opportunities may occur during scheduled events. Officers may focus on enforcing speeding, impaired driving, distracted driving, and seatbelt laws.

Objective

Improve coordination between law enforcement agencies.

Lead Agency

Alaska Department of Public Safety

Action 1.6

Continue the deployment and implementation of Traffic and Criminal Software (TraCS)

Background and Purpose

TraCS is a data collection and reporting application for the public safety community. It provides a state-of-the-art information management tool to streamline and automate the capture and transfer of incident data in the field. Using the latest mobile computing technologies to capture and report incident data where it occurs, TraCS improves the accuracy, completeness, and timeliness of incident data and reduces administrative duties and paperwork by law enforcement personnel.

The purpose of this SHSP strategy is to continue to support TraCS implementation.

Objective

Improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of electronic citation and vehicle crash data.

Lead Agency

Alaska Department of Public Safety (with assistance and input from the TraCS Steering Committee)

Action 1.7

Enhance enforcement in areas with high numbers of crashes

Background and Purpose

Similar to the designated Safety Corridors in Alaska, this activity is designed to increase patrols where there is a higher than average incidence of fatal and serious injury crashes.

Objective

Increase frequency of enforcement patrols in areas with high numbers of crashes.

Lead Agency

Alaska Department of Public Safety

Strategy 2: Improve the prosecution and adjudication of all driver violations.

Action 2.1

Educate prosecutors and court system on highway safety issues, specifically impaired driving

Background and Purpose

This strategy is intended to coordinate information sharing between prosecutors, law enforcement agencies, State District Attorneys, the Alaska Highway Safety Office, the Department of Motor Vehicles, public and private schools, and defense attorneys ensuring consistent information and education is provided to the motoring public about impaired driving. Enhanced prosecution of impaired and drugged driving and other highway safety infractions is a desired effect of this strategy.

Objective

Provide statewide prosecutor training and technical assistance throughout Alaska.

Lead Agency

Alaska Department of Public Safety

Strategy 2: Improve the prosecution and adjudication of all driver violations.

Action 2.2

Improve and enhance the effectiveness of Alaska's Ignition Interlock Device (IID) program through an effective and consistent policy and oversight

Background and Purpose

An "ignition interlock device" is equipment designed to prevent a motor vehicle from being operated by a person who has consumed an alcoholic beverage. In Alaska, a court must order an offender to drive a vehicle with an IID installed, and the DMV is required to place a "C" (ignition interlock device required) restriction on the driver license. The back of the license will state "IID REQUIRED" under the heading "Restrictions." On a limited driver's license, "Ignition Interlock Device Required" is printed in bold letters on the paper license.

The IID program is not working as intended in Alaska. DUI offenders often are driving without a license rather than purchasing IIDs. Less than 25 percent of convicted DUI offenders use an IID. DMV data show almost 8,000 IIDs are expected to be, or have been, in vehicles, but far fewer are utilized. Enhanced policies and procedures could improve the effectiveness of the IID program.

The purpose of this initiative is to research and prepare information for legislative consideration, such as enhanced legislation, policies, and procedures, etc.

Objective

To improve and enhance the effectiveness of the Alaska IID program.

Lead Agency

Department of Corrections

Action 2.3

Reduce DUI recidivism by expanding the Therapeutic Court Program to additional communities

Background and Purpose

A February 2007 recidivism study conducted by the Alaska Judicial Council shows graduates of Alaska's felony therapeutic courts are significantly less likely to repeat offenses when compared to offenders with similar offenses and prior conviction records. The rearrest rate for therapeutic court graduates was 14 percent within a year of release compared to a 32 percent rearrest rate for the comparison group. DUI Courts are administered by the Alaska Court System. They target repeat offenders and are designed to reduce the DUI recidivism rate. Alaska's DUI courts currently operate in Anchorage, Bethel, Fairbanks, Juneau, and Ketchikan. The offenders benefit from a combination of incentives, sanctions, treatment, and long-term monitoring. The programs focus primarily on offenders charged with multiple DUI offenses, i.e., the highest-risk DUI offenders.

Objective

Institutionalize the therapeutic court model throughout Alaska to reduce the number of DUI repeat offenders.

Lead Agency

Alaska Court System

Strategy 3: Educate drivers to be responsible.

Action 3.1

Identify available data, establish a baseline, and measure changes among underage youth in knowledge, attitude, and behaviors related to alcohol use and driving behaviors

Background and Purpose

Teen drivers consistently comprise just over 5 percent of Alaska's Licensed Drivers. However, teen drivers typically make up over 20 percent of total fatalities and 30 percent of major injuries. According to results from the 2011 Alaska Youth Risk Behavior Survey, almost 9 percent of Alaskan high school students sampled reported rarely or never wearing a seatbelt. Almost 19 percent of Alaskan high school students sampled by the same survey indicated that they had ridden with a driver who had been drinking alcohol on at least one occasion. As Alaska implements strategies to curb unsafe driving behavior, there is a need to measure the impact and effectiveness of these strategies, therefore, the purpose of this strategy is to establish a measurement framework to improve knowledge of driving behaviors among Alaskan youth.

Objective

Improve knowledge of factors leading to impaired driving and other unsafe driving behavior by Alaska youth.

Lead Agency

Alaska Injury Prevention Center

Strategy 3: Educate drivers to be responsible.

Action 3.2

Design and implement standardized measures to better evaluate collective impact of youth programs

Background and Purpose

Alaska is implementing a variety of programs to curb unsafe driving behavior by young drivers; however, the combined impact and effectiveness of the programs is unknown. The purpose of this strategy is to establish measures that will determine impact and effectiveness.

Objective

Establish standardized measures to evaluate the impact of youth programs.

Lead Agency

Alaska Injury Prevention Center

Action 3.3

Develop a resource to provide practitioners a guide for best practices related to driver behavior

Background and Purpose

Safety practitioners may turn to numerous sources at the Federal, state, and local level to obtain information on best practices related to driver behavior. To consolidate this information into a concise volume relevant for the Alaskan public, this strategy involves the development of a driver behavior resource guide specific to Alaska.

Objective

Develop a driver behavior resource guide.

Lead Agency

Alaska Injury Prevention Center

Action 3.4

Collaborate with multiple partners to promote responsible driving

Background and Purpose

Opportunities exist to coordinate educational campaigns between agencies across the 4 Es, ensuring safe driving practices by all Alaskans. These opportunities may occur during scheduled events throughout the year. These educational campaigns may focus on the impacts of speeding, impaired driving, distracted driving, and seatbelt use, among others.

Objective

Improve collaboration between education, enforcement, engineering, and emergency response agencies to promote responsible driving.

Lead Agency

Alaska Injury Prevention Center

Action 3.5

Improve understanding of impaired driving among youth and implement outreach programs

Background and Purpose

Seventeen percent of fatal and major injury crashes in Alaska involved an alcohol-impaired teen driver. Since teen drivers only comprise just over 5 percent of Alaskan licensed drivers, there is a disproportionate relationship between teen drivers and crashes in the State. A series of programs in Alaska have been developed to communicate the consequences of alcohol use, including Raise Your Voice, ThinkFast, and High School Buckle Up. These programs may be enhanced or additional programs may be introduced.

Objective

Conduct outreach to address impaired driving and other unsafe driving behavior.

Lead Agency

Alaska Injury Prevention Center

Action 3.6

Enhance young driver safe driving and occupant protection programs

Background and Purpose

Novice drivers under 20 years of age have the highest crash risk of any age group on the road. Teen crash risk is impacted by developmental and behavioral issues coupled with inexperience. While many teens crash because of risk-taking, most crashes occur because the teen behind the wheel doesn't have the skills or experience needed to recognize a hazard and take corrective action. Like their peers in the lower 48 states, Alaskan teens are most likely to crash due to driver error with recognition (e.g., inadequate surveillance, distraction/inattention) and decision errors (e.g., following too closely, driving too fast for conditions/speeding) topping the list. The purpose of this strategy is to implement programs to educate young drivers on safe driving principles.

Objective

Enhance education of highway safety among young drivers.

Lead Agency

Alaska Highway Safety Office

Strategy 3: Educate drivers to be responsible.

Action 3.7

Educate the public on enforcement campaigns, safe driving laws, and other programs

Background and Purpose

Opportunities exist to coordinate enforcement and education campaigns between agencies across the 4 Es, ensuring safe driving practices by all Alaskans. These opportunities may occur during scheduled events throughout the year. These enforcement and educational campaigns may focus on the impacts of speeding, impaired driving, distracted driving, and seatbelt use, among others, on safe driving principles and use of seat belts.

Objective

Improve collaboration between education, enforcement, engineering, and emergency response agencies to promote responsible driving.

Lead Agency

Alaska Highway Safety Office

Action 3.8

Enhance older driver safe driving programs

Background and Purpose

Everyone ages differently and where some people are perfectly capable of continuing to drive in their seventies, eighties, and even beyond; many elders are at higher risk for on- or off-road crashes. According to studies conducted by the National Highway Traffic Safety Administration (NHTSA) older drivers are more likely to receive traffic citations for failing to yield, turning improperly, and running red lights and stop signs – an indication of decreased driving ability. A person 65 or older who is involved in a car crash is more likely to be seriously injured, more likely to require hospitalization, and more likely to die than younger people involved in the same crash. In particular, fatal crash rates rise sharply after a driver has reached the age of 70. The purpose of this strategy is to build awareness of older driver issues in Alaska.

Objective

Develop educational and enforcement programs to address older drivers and to increase public awareness of older driver issues.

Lead Agency

Alaska Highway Safety Office

Action 3.9

Increase awareness of other impaired users of the highway system.

Background and Purpose

Alaska's widespread use of off-road vehicles and the resulting crashes and injuries have major implications unique to Alaska. In addition, impaired bicyclists, motorcyclists, and pedestrians may put themselves at risk and result in a crash with serious consequences. Efforts needs to be made to assure these users of the transportation system have education and training that address alcohol and other drug impairment. Impaired driving laws and enforcement activities need to adequately address these users before they are involved in a crash.

Objective

Increase awareness of impaired operation of off-road vehicles, motorcycles, and bicycles as well as impaired pedestrians.

Lead Agency

Alaska Injury Prevention Center

Action 3.10

Conduct refreshers for occupant restraint training

Background and Purpose

During the calendar year 2012, the Alaska Statewide CPS Coalition conducted over 1,500 car seat inspections, of which 89 percent of inspected car seats were found to have some form of misuse. The Coalition promotes child passenger safety by educating parents and caregivers regarding proper selection and installation of restraints. Free car seat checks are a service provided by trained CPS technicians throughout Alaska. These technicians require continuing education and support to ensure the traveling public are educated on the proper use of child restraints.

Objective

Provide continuing education and support for CPS technicians and programs.

Lead Agency

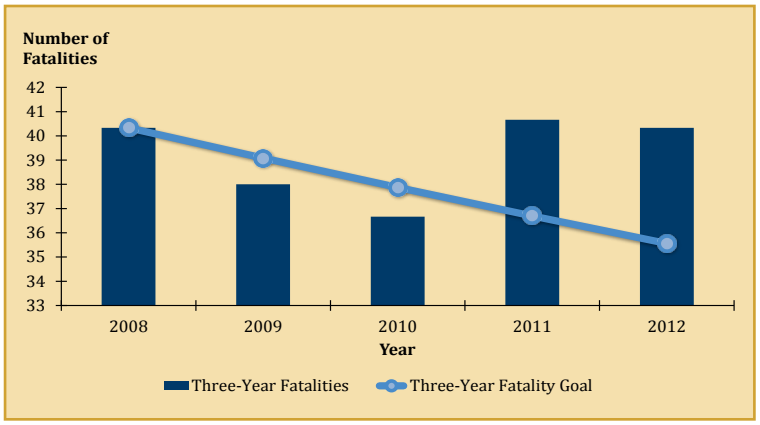
Alaska Statewide Child Passenger Seat Coalition

ALASKA
HIGHWAY

Emphasis Area: ROADWAYS

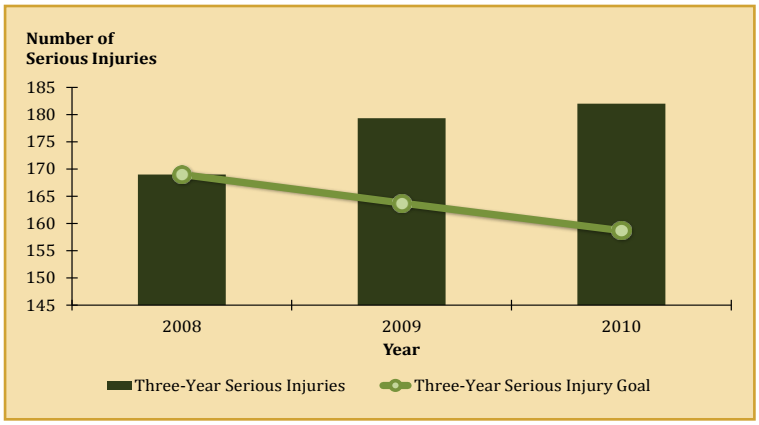
In this 2013 SHSP Revision, the Roadway emphasis area consists primarily of highway infrastructure improvement actions and has been expanded to not only address lane departure and intersection crashes, but also to account for the integration of electronic information systems. As data is at the heart of strategic highway safety planning, by adopting strategies to improve and analyze traffic data, Alaska agencies will be able to make more informed decisions on its safety investments.

Figure 12. Lane Departures
Fatalities (Three-Year Average and Goal)



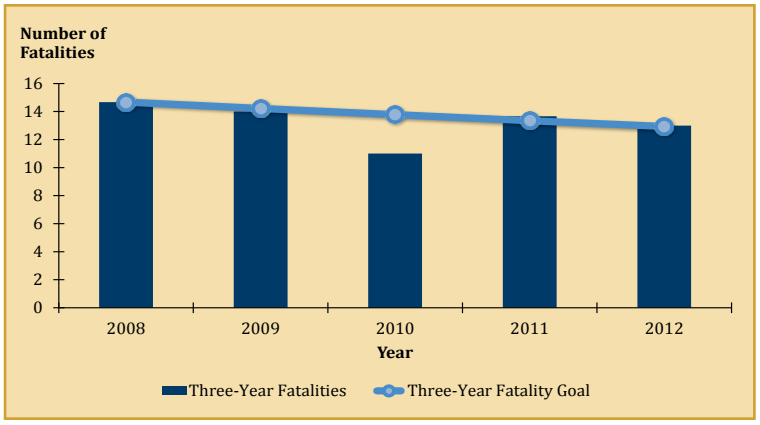
Source: Highway Analysis System.

Figure 13. Lane Departures
Serious Injuries (Three-Year Average and Goal)



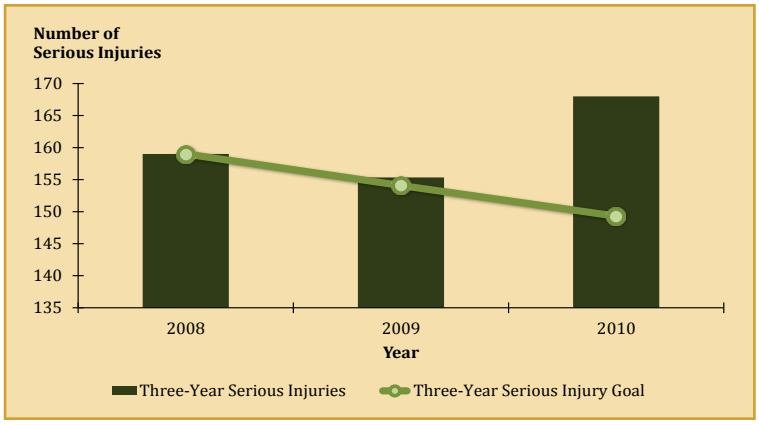
Source: Highway Analysis System.

Figure 14. Intersections
Fatalities (Three-Year Average and Goal)



Source: Highway Analysis System.

Figure 15. Intersections
Serious Injuries (Three-Year Average and Goal)



Source: Highway Analysis System.

Alaska is close to meeting its three-year average fatality reduction targets for both lane departure and intersection crashes, however, there has been an increase in the three-year average serious injuries for these crashes. Alaska highway safety stakeholders will continue the implementation of strategies and actions to ensure both fatality and serious injuries targets are met.

As required by MAP-21, we are providing the Alaska definition for High-Risk Rural Roads (HRRR): Any roadway segment functionally classified rural major collector, rural minor collector, or rural local road which ranks in the top 10 percent by rate of fatal plus major injury crashes per mile. Rate is measured using an average of 5 years crash data over the length of the functional class segment, with crashes at crossing and entering route intersections excluded when those crashes are not attributed to the HRRR.

Strategy 1: Implement education/awareness programs to enhance roadway safety.

Action 1.1

Implement programs to increase awareness at intersections

Background and Purpose

Whether an intersection is signalized or unsignalized, drivers need advanced information about an upcoming intersection. Such information includes the form of intersection control, presence of pedestrian crossings, directional wayfinding, or facilities at the intersection. Drivers also need to learn how to navigate alternative intersection designs, such as roundabouts. The availability of educational materials is important in educating the public about unique intersections as well as general intersection safety knowledge.

Objective

Increase awareness by the public of intersection safety.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.2

Implement programs to increase awareness of work zone safety

Background and Purpose

Alaska averages nearly 45 highway work zone crashes each year. Roadway work zones are a safety concern for both motorists and workers alike. The motoring public and workers share limited space, reducing the amount of roadway for a driver to maneuver and places a worker closer to moving, often fast-moving traffic. The purpose of this strategy is to ensure the motoring public is aware of work zone traffic safety issues.

Objective

Increase awareness by the public of work zone safety.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.3

Implement programs to increase awareness of head-on crashes

Background and Purpose

Approximately 15 people die in Alaska each year in head-on crashes, often the innocent victims of errant motorists. Aside from implementing engineering countermeasures, a common method to prevent these crashes is to utilize education and enforcement programs to encourage safe driving behavior.

Objective

Increase awareness by the public of head-on crashes.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.4

Implement programs to increase awareness of wildlife crashes

Background and Purpose

Alaskans know first-hand the impact of animal-vehicle collisions. Despite this knowledge, these collisions continue to occur on roadways. Even the most hardened Alaskan resident may end up in such a crash. It is important to provide reminders to the motoring public about the effects of these crashes. Such messages may involve public outreach campaigns and distributed material. These campaigns also would be beneficial for tourists who are not familiar with the potential severity of animal-vehicle crashes.

Objective

Increase awareness by the public of wildlife crashes.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.5

Utilize 511 and traveler information systems to disseminate roadway safety messages

Background and Purpose

Alaska has made significant investments to expand the availability of roadway information to the traveling public. Traveler information is provided in several forms, including web-based formats, telephone systems, and advance warning signage. As the infrastructure for these forms of media are in place, they can be easily utilized as a method to distribute highway safety information to the public.

Objective

Increase use of traveler information systems to inform the traveling public of roadway safety.

Lead Agency

Alaska Department of Transportation and Public Facilities

Strategy 2: Implement engineering programs to enhance roadway safety.

Action 2.1

Preserve main roads and build multilane/ divided highways for Alaska's future economy

Background and Purpose

Freeways have the greatest safety and capacity of any class of road used for long-distance travel. Mobility of people and goods is a catalyst for economic development at both the statewide and national level. Preserving and enhancing Alaska's highway infrastructure will improve safety and boost major sectors of the statewide economy. Approximately 1,000 miles of Alaska's "main roads" currently are classified as National Highway System Interstate; however, only approximately 100 of those miles are built to freeway standards. The remaining approximately 900 miles of Alaska's interstate roadways have been two lanes since before the Interstate Act and statehood. Based on a review of crash and congestion data, freeway miles on Alaska's highway system need to triple. Most of the right-of-way width exists for long-term widening to four-lane divided highways (not including frontage roads). This right-of-way is a significant public investment in the future.

Objective

Preserving right-of-way on existing roadways for future widening to controlled access multilane divided highways.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.2

Plan for safety upgrades early in the project scoping process

Background and Purpose

Current planning methods have improved to allow for a "safety score" for projects, but still leave identification of specific safety features to be determined during detailed design. Under Alaska's project development process, certain design standards may be deferred unless there is a site-specific crash history. Identifying safety features before detailed design begins will improve budgeting and allow for improvements on a broader scale, potentially reducing the likelihood of injury and fatality crashes.

Safety improvements would be considered during project scoping by consulting with the Regional Traffic and Safety Engineer as follows:

1. Review the status of existing traffic control devices within the project limits and consider upgrades when the project budget is developed;
2. Review crashes in the project limits and consider cost-effective mitigation practices that may address the correctable crashes; and
3. Consider historical public safety requests within the project limits and consider cost-effective mitigation practices that may address the correctable issues identified in the requests.

Objective

Clearly define safety improvements at the beginning of the project planning process.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.3

Implement infrastructure projects to address run-off-road crashes

Background and Purpose

This strategy is designed to target road segments with a higher concentration of run-off-road crashes. A large proportion of Alaska highway fatalities are from run-off-road crashes. A number of actions are included as part of this strategy, including the continued implementation of Highway Safety Corridor programs; the installation and maintenance of rumble strips; upgrading the signing and delineation of roadside curves; the widening of shoulders; and the flattening of roadside slopes and improvement of clear zones. The application of these treatments give motorists an increased opportunity to correct when they stray from travel lanes, minimizes edge drop-offs, and provides space for emergency parking.

Objective

Reduce the number of run-off-road crashes on Alaskan highways.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.4

Implement infrastructure projects to address head-on crashes

Background and Purpose

This strategy is designed to target road segments with a higher concentration of head-on crashes. A number of actions are included as part of this strategy, including the construction of centerline rumble strips; the requirement of full-time headlight usage in specific corridors to improve vehicle visibility; the installation of median barriers or buffers; the construction of turnouts for safe stoppage of vehicles; the installation of passing lanes; the installation of turn lanes to separate turning and through traffic; and the construction of multilane and divided highways to provide better separation between traffic in opposing directions. The application of these treatments improve the visibility of opposing vehicles, improve opportunities for drivers to correct when straying into the opposing lane, and provide safer passing opportunities for overtaking traffic.

Strategy 2: Implement engineering programs to enhance roadway safety.

Objective

Reduce the number of head-on crashes on Alaskan highways.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.5

Implement infrastructure projects to address intersection crashes

Background and Purpose

Good access management and intersection control can reduce crashes. This strategy contains a number of actions to address crashes between vehicles traveling in conflicting directions. These actions include developing an access management policy to address the number of access points from the road side; updating signal timing hardware and timing to optimize safe passage of vehicles at signalized intersections; improving enforcement at intersections, including investigating red light-running applications; upgrading school crossings and railroad crossings; installing new beacons, signals, and pedestrian countdown timers; and installing medians or barriers to improve pedestrian crossings at intersections. The application of these treatments can help reduce the severity or reduce the number of crashes at intersections.

Objective

Reduce the number of crashes at intersections.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.6

Implement appropriate engineering strategies to address high-crash locations involving older drivers and pedestrians

Background and Purpose

Older drivers and pedestrians can be vulnerable to a variety of road conditions and circumstances. This strategy targets locations with significant older driver and pedestrian crash problems by tailoring mitigation strategies to crash patterns (for example, intersection skew realignment; intersection sight distance; left-turn lane geometry, signing, and delineation; one-way/wrong way signing, etc.). Emphasis is given to engineering measures described in FHWA *Highway Design Handbook for Older Drivers and Pedestrians*.

Objective

Apply appropriate engineering strategies to address specific older driver- and pedestrian-related high-crash locations.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.7

Implement infrastructure projects to address animal-vehicle collisions

Background and Purpose

A large number of crashes involving animals occur in Alaska. This strategy considers investments in highway infrastructure along existing and predicted high-ranking animal-vehicle collision corridors with the objective of preventing or reducing public death and injuries. This strategy involves the construction of safety improvements at wildlife/highway crossings which are demonstrated to be cost-effective. Otherwise additional improvements are considered as enhancements rather than public safety improvements. Cost-effective infrastructure projects may be eligible for HSIP (Highway Safety Improvement Program) funding. Research projects which evaluate the cost-effectiveness, operation, and maintenance requirements of animal-vehicle crash mitigation systems also will be considered.

Objective

Reduce the number of animal-vehicle collisions by investing in highway infrastructure.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.8

Implement wildlife management and habitat manipulation techniques to address animal-vehicle collisions

Background and Purpose

A large number of crashes involving animals occur in Alaska. This strategy, pending approval, considers investments in wildlife management which will prevent or reduce public death and injuries along high-ranking animal-vehicle collision corridors. Actions include managing wildlife and habitat for wildlife goals while considering public safety. Wildlife mortality causes will be examined and best overall cost-effective methods will be selected for both minimizing vehicle/wildlife collisions while still meeting stable wildlife population goals.

Objective

Reduce the number of animal-vehicle collisions by investing in wildlife management and habitat manipulation.

Lead Agency

Alaska Department of Fish and Game and Department of Public Safety

Strategy 2: Implement engineering programs to enhance roadway safety.

Action 2.9

Install infrastructure for real-time data collection

Background and Purpose

As data is at the heart of strategic highway safety planning, the quality, timeliness, and availability of data are paramount. Providing the infrastructure to meet these characteristics is a significant task, however, Alaska has made and will continue to make investments to support the interconnectivity of data systems.

Objective

Expand the use of data collection technologies to improve highway safety data.

Lead Agency

Alaska Department of Transportation and Public Facilities

Strategy 3: Implement improvements to EMS to enhance roadway safety.

Action 3.1

Encourage the expansion of 911 service miles

Background and Purpose

The vastness of Alaska means response times to crashes in remote segments of the roadway system are much greater than in well served areas of the State. The purpose of this strategy is to enhance emergency response systems to reduce response times.

Objective

Decrease 911 response times in remote segments of the Alaska roadway system.

Lead Agency

Alaska Department of Health and Social Services, Emergency Programs

Action 3.2

Expand signage and call box coverage area and map coverage area

Background and Purpose

Significant portions of the Alaska roadway system are not within range of mobile telephony signals, therefore, a motorist requiring assistance will be reliant on wired communication infrastructure in these locations. The purpose of this strategy is to expand wired communication to service these areas.

Objective

Expand communication infrastructure in underserved areas of the Alaska roadway system.

Lead Agency

Alaska Department of Transportation and Public Facilities

Strategy 4: Utilize data and electronic information programs to enhance roadway safety.

Action 4.1

Improve crash data collection procedures and methods

Background and Purpose

The heart of strategic highway safety planning is data which helps inform where investments need to be made to reduce fatalities and serious injuries. Data collection is the key first step – the quality of collected crash data is the key determinant of its accuracy and timeliness. The purpose of this strategy is to ensure adequate procedures and methods are used to collect data and shall include motor vehicles, bicycles, pedestrians, and off-highway vehicles.

Objective

Improve crash data collection procedures and methods, with a stronger focus in remote and rural areas.

Lead Agency

Alaska Traffic Records Coordinating Committee

Action 4.2

Improve crash data analysis and distribution of data to users

Background and Purpose

As crash data are used to make highway safety investment decisions, the quality of data analysis and the presentation of data will guide how decision-makers view the magnitude of safety issues. The timeliness of data is also critical as outdated information may not properly inform crash analysis. This strategy has the purpose of strengthening data analysis procedures as well as ensuring data can be provided to the public in a timely manner.

Strategy 4: Utilize data and electronic information programs to enhance roadway safety.

Objective

Improve the quality and timeliness of crash data provided to the public.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 4.3

Conduct research on Alaska-specific issues related to roadway collisions

Background and Purpose

Much research on highway safety across the 4 Es of engineering, enforcement, education, and emergency response has taken place across the United States and worldwide. However, the relevance of these studies to Alaska is uncertain in some cases. Alaska has its own unique set of traveling conditions which may be difficult to replicate elsewhere, therefore, opportunities exist for research projects to investigate Alaska-related highway safety issues.

Objective

Improve Alaska-related highway safety knowledge base.

Lead Agency

Alaska Research Advisory Board

Action 4.4

Utilize real-time data to enhance roadway safety information

Background and Purpose

Data is the core of strategic highway safety planning. Utilizing current data ensures planning decisions are informed and not based on outdated information. Real-time data is also important in informing the traveling public about incidents that may affect their trip. Together, providing current data for planning and real-time data for travelers ensures Alaskans are informed about highway safety.

Objective

Utilize real-time highway safety data to enhance information on highway safety.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 4.5

Improve monitoring of other transportation data for highway safety

Background and Purpose

There are multiple holders of crash-related data across Alaska. Data may include roadway information, the actual crash, trauma records, court records, and driver licensing. Linking these data systems together create a clearer picture about the contributing factors leading to a crash, the severity of the crash, and the crash adjudication.

Objective

Improve coordination and linkage of highway safety data between holders of the data.

Lead Agency

Alaska Traffic Records Coordinating Committee

Strategy 5: Implement HSIP-qualified strategies.

Action 5.1

Improve roadway safety through HSIP-qualified activities and projects

Background and Purpose

The Highway Safety Improvement Program (HSIP) is the primary manner in which safety projects are implemented. All HSIP projects are required to align with SHSP emphasis areas and strategies. The SHSP is a broad statewide effort to identify cost-effective, programmatic safety countermeasures. It is focused on general crash trends rather than at specific locations. The HSIP, on the other hand, looks in detail at specific locations to determine whether individual countermeasures are cost-effective. For this reason, some HSIP projects do not overlap with SHSP action plans.

The purpose of this strategy is to identify and implement strategies, activities, or projects on a public road that correct or improve a hazardous road location or feature, or address a highway safety problem as allowed under MAP-21 revision to 23 USC § 148 Highway Safety Improvement Program or in Federal regulation 23 CFR 924 Highway Safety Improvement Program.

Objective

Reduce fatal and major injury crashes by utilizing all measures allowed in HSIP statute and regulation but not expressly included in Roadways or other emphasis areas.

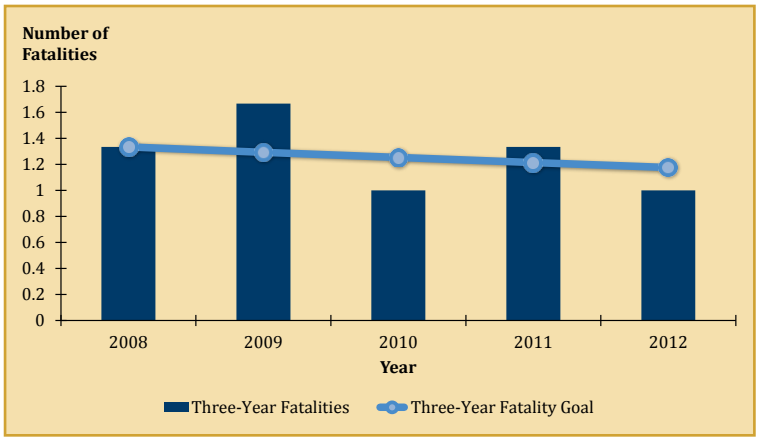
Lead Agency

Alaska Department of Transportation and Public Facilities

Emphasis Area: SPECIAL USERS

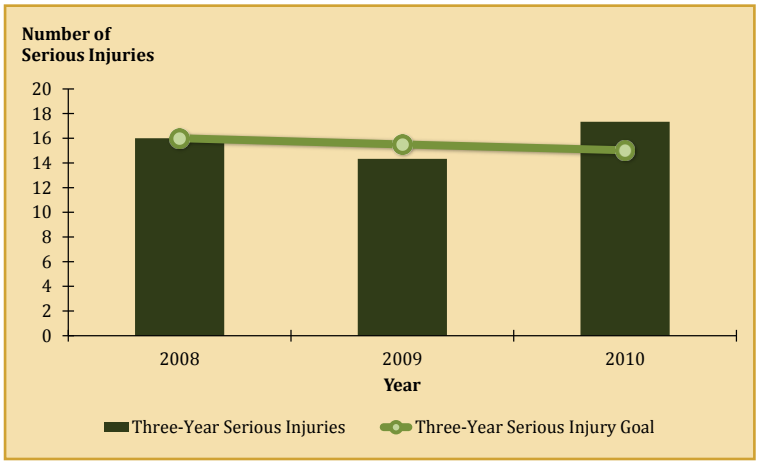
For each of bicyclists, pedestrians, and motorcyclists user groups that make up this emphasis area, Alaska is close to meeting its three-year average fatality reduction targets. Since the actual fatality numbers are low, the serious injury numbers also must be considered. There has been a increase in the three-year average serious injuries for each of the three user groups. Efforts will need to be taken to ensure both fatality and serious injuries targets are met. Furthermore, MAP-21 requires states to address older pedestrians if the per capita highway fatalities and serious injuries for pedestrians 65 years of age and older increases over the most recent two-year period. A number of users of Alaska's highway system are those on vehicles traditionally considered off-highway vehicles (OHVs): all-terrain vehicles (ATVs) and snow machines. Many Alaskans rely on ATVs and snow machines for work, basic transportation, and recreation. While OHVs are not being studied as an emphasis area, this transportation mode has Alaska-specific uses and crash patterns and the users of these vehicles should therefore be considered as part of the Special Users emphasis area.

Figure 16. Bicyclists
Fatalities (Three-Year Average and Goal)



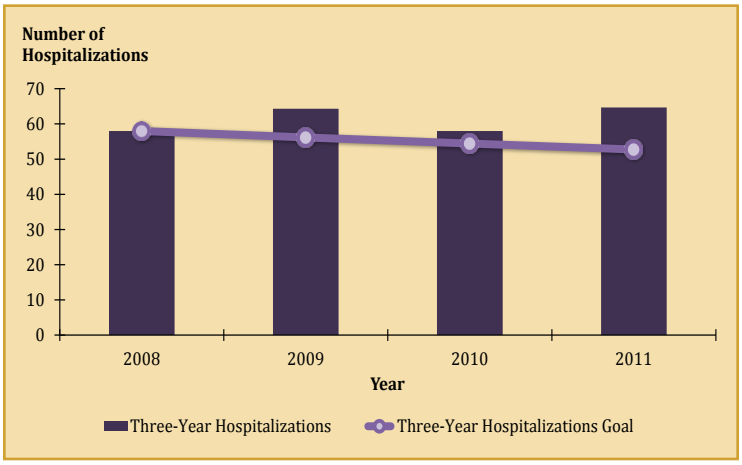
Source: Highway Analysis System.

Figure 17. Bicyclists
Serious Injuries (Three-Year Average and Goal)



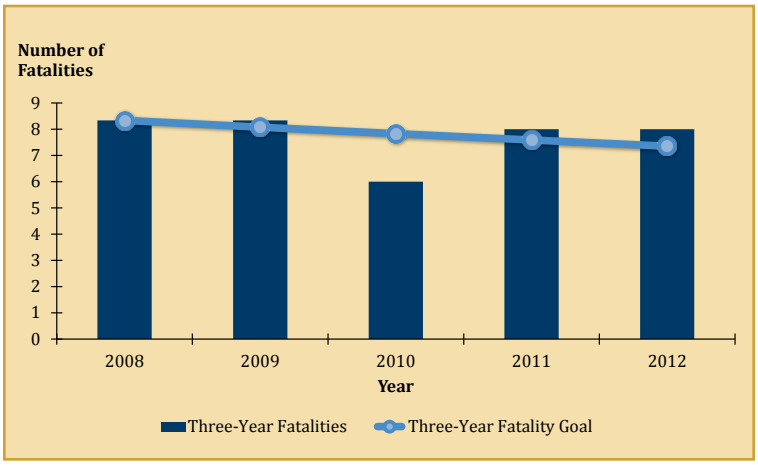
Source: Highway Analysis System.

Figure 18. Bicyclists
Hospitalizations (Three-Year Average and Goal)



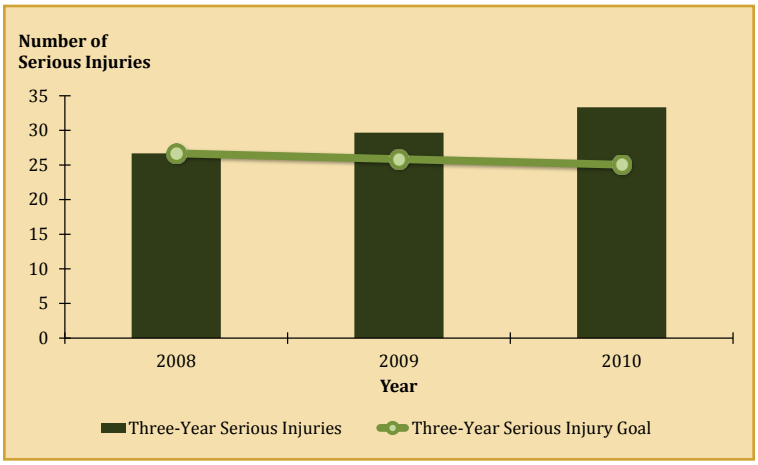
Source: Alaska Trauma Registry.

Figure 19. Pedestrians
Fatalities (Three-Year Average and Goal)



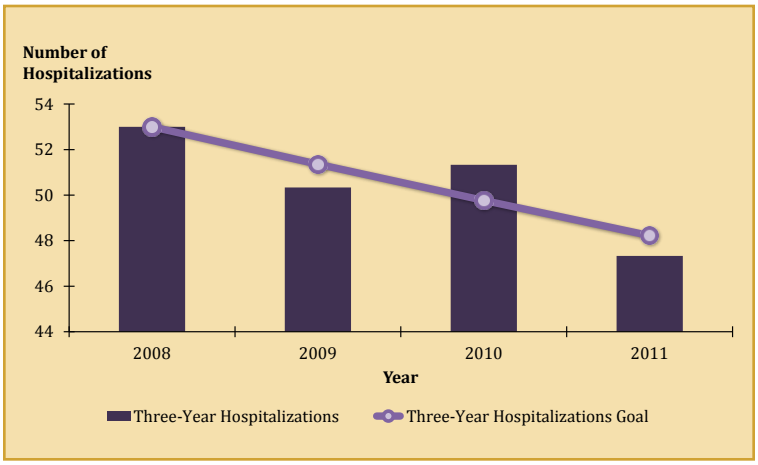
Source: Highway Analysis System.

Figure 20. Pedestrians
Serious Injuries (Three-Year Average and Goal)



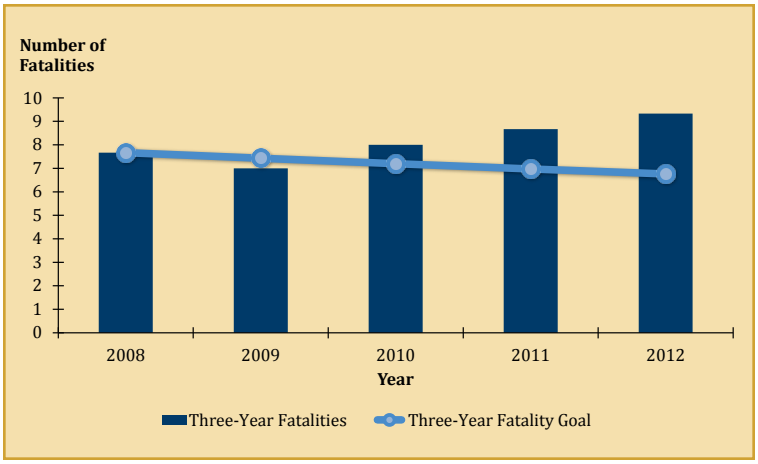
Source: Highway Analysis System.

Figure 21. Pedestrians
Hospitalizations (Three-Year Average and Goal)



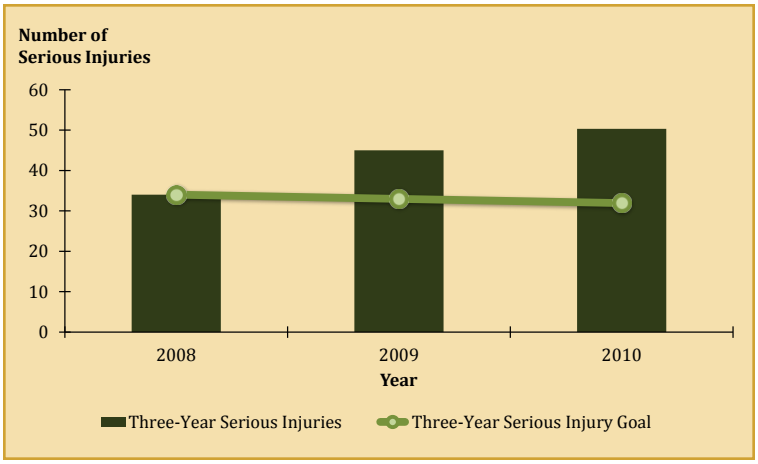
Source: Alaska Trauma Registry.

Figure 22. Motorcycles
Fatalities (Three-Year Average and Goal)



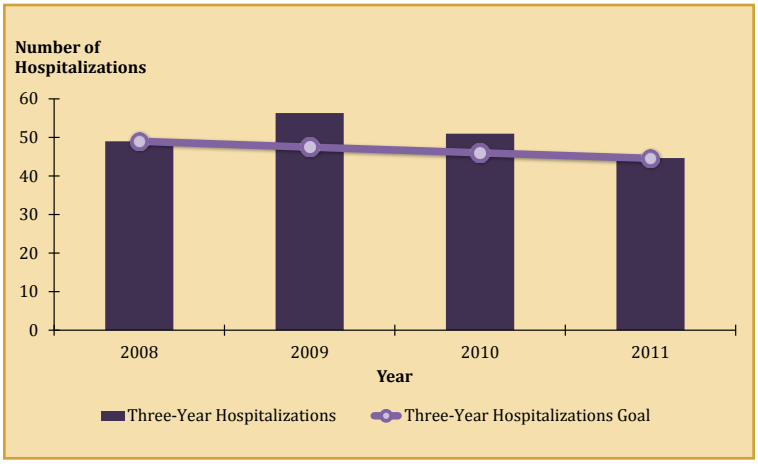
Source: Highway Analysis System.

Figure 23. Motorcycles
Serious Injuries (Three-Year Average and Goal)



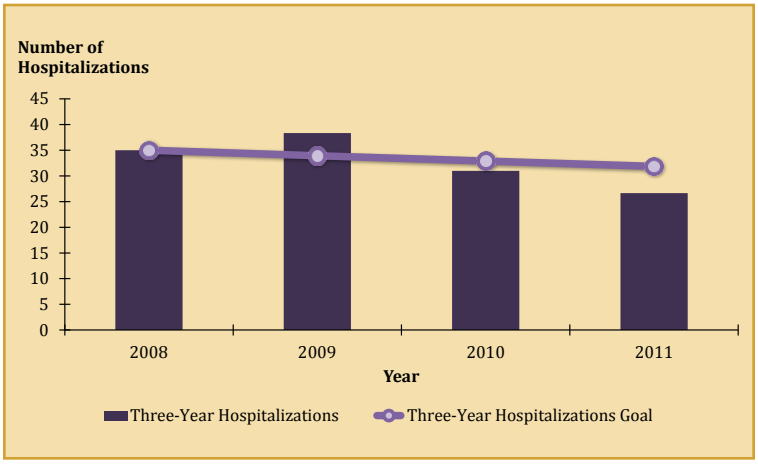
Source: Highway Analysis System.

Figure 24. All-Terrain Vehicles
Hospitalizations (Three-Year Average and Goal)



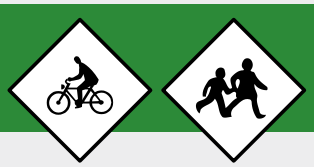
Source: Alaska Trauma Registry.

Figure 25. Snow Machines
Hospitalizations (Three-Year Average and Goal)



Source: Alaska Trauma Registry.

Strategy 1: Implement education/awareness practices to enhance bicycle and pedestrian safety.



Action 1.1

Conduct public education and outreach to raise awareness of bicyclist and pedestrian safety issues

Background and Purpose

Pedestrian-related crashes account for a little over 1 percent of all crashes in Alaska, but result in nearly 11 percent of all fatalities and over 6.5 percent of all major injuries. Bicycle-involved crashes represent about 1.3 percent of all crashes, but over 2 percent of all fatalities and almost 4 percent of all major injuries. The effectiveness of educational and outreach campaigns vary with the objectives and resources available, according to NHTSA Countermeasures That Work and NCHRP 500 Series Reports. "The keys to success are to make pedestrian education an ongoing component of highway safety education activities; to implement comprehensive, long-term programs; and to use appropriate, well designed, educational programs and materials for pedestrians and motorists in conjunction with engineering and enforcement programs." This strategy includes a number of actions that will enhance public education and outreach efforts in the area of bicyclist and pedestrian safety.

Objective

Develop and implement public education, outreach, and training programs to raise awareness of bicyclist and pedestrian safety issues and motivate changes to reduce the risk of pedestrian and bicyclist injuries.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.2

Outreach to raise awareness of bicyclist and pedestrian safety issues with law enforcement and local governing bodies

Background and Purpose

This strategy is an outreach, educational, and training program targeted at law enforcement professionals and policy-makers, primarily locally elected officials. It is intended to address the particular needs of the two audiences to broaden their understanding of the roles and needs of bicyclists and pedestrians as recognized modes of transportation. Law enforcement officers and elected officials have shown an interest in receiving targeted educational materials relevant to their roles. It is hoped that a greater awareness of bicycle and pedestrian issues will result in better enforcement and policy actions.

Objective

Develop and implement outreach, education, and training programs for law enforcement and local governing bodies to raise awareness of bicyclist and pedestrian safety and enforcement issues and to motivate changes that will result in reduced risks for pedestrians and bicyclists and other road users.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 1.3

Increase pedestrian and bicyclist visibility and operator use of protective equipment

Background and Purpose

The NHTSA publication *Countermeasures That Work,* Sixth Edition, 2011 notes that programs to enhance the conspicuity of pedestrians are "likely to be effective." It notes that the use of retroreflective materials increases the ability of drivers to detect pedestrians in time to avoid crashes. Costs to provide retroreflective materials are low, particularly when distributed in quantities. Programs promoting increased conspicuity may require development of targeted messages and a publicity strategy to improve effectiveness. Similarly, the NHTSA publication notes that active lighting by bicyclists is highly effective, while the effectiveness of other conspicuity measures improve driver detection during the day. High-visibility clothing makes bicyclists more noticeable during daylight, while the use of the same items with retroreflective materials makes the bicycle and bicyclists more visible in low-light conditions. NHTSA notes that evidence about the effectiveness of promotional measures is not available, but that logic suggests if bicyclists are more noticeable, the frequency and severity of crashes would likely be reduced.

Objective

Improve the visibility of pedestrians and bicyclists and their bicycles by supporting injury prevention agencies to distribute high-visibility, retroreflective accessories and provide education and outreach programs.

Lead Agency

Alaska Injury Prevention Center

Action 1.4

Expand Alaska's Driver's Manual to include more detailed information about bicycle and pedestrian safety

Background and Purpose

The 2010 Alaska Drivers Manual includes two short paragraphs about driving on roads with bicyclists; just over a page is devoted to driving near pedestrians. Judging from recurring letters to newspaper editors throughout the State, many motorists mistakenly believe that bicyclists do not have the right to use the road

Strategy 1: Implement education/awareness practices to enhance bicycle and pedestrian safety.

or shoulder. Clarifying the rights and responsibilities of motor vehicle drivers, bicyclists, and pedestrians in the drivers' manual and licensing exam is one step of a public outreach effort needed to improve the safety of all transportation modes using Alaska's roadways. NHTSA's *Countermeasures That Work,* Sixth Edition, 2011, reports that driver education has not been shown to reduce overall crash rates, but the objective of adding information is to improve new driver's anticipation of, and interaction with, other road users, and improve their behaviors as bicyclists and pedestrians.

Objective

Expand the Alaska's Drivers Manual to include more detailed information about bicycle and pedestrian safety and sharing the road with bicycles and pedestrians. Incorporate questions regarding bicycle and pedestrian safety in the state driver licensing exam.

Lead Agency

Alaska Division of Motor Vehicles

Action 1.5

Expand the Safe Routes to Schools Program in Alaskan communities

Background and Purpose

The goal of the Safe Routes to School Program (SRTS) is to increase the amount of walking and bicycling trips to and from school while simultaneously improving safety for children walking or bicycling to school (NHTSA, *Countermeasures That Work,* Sixth Edition, 2011). Expanding the program is intended to increase the number of children walking and biking to school and communities participating in the program. This program helps communities address concerns in the area near elementary and middle schools. The program areas include consideration of routes children may take one mile from schools for walking and two miles for biking. The program is intended to encourage a healthy lifestyle and education of safety messages. Activities make it fun for kids to learn how to travel safely to school. NHTSA (*Countermeasures That Work,* Sixth Edition, 2011) notes that SRTS programs can be effective; different methods produce different results.

Objective

Raise awareness and participation of Alaskan communities in the Safe Routes to Schools (SRTS) program. Identify and access additional funding for improvements. Consider best practices used in other states.

Lead Agency

Alaska Department of Transportation and Public Facilities, SRTS Program

Action 1.6

Increase bicycle helmet use

Background and Purpose

This strategy is designed to increase statewide public awareness of protective benefits of bicycle helmets for riders of all ages, resulting in increased bike helmet use (as evidenced by helmet use observational survey results). NCHRP Report 500-18 notes that "studies have shown that riders wearing helmets are 70 to 88 percent less likely to suffer serious head injuries or fatalities in a bicycle crash than nonhelmeted riders. There is no evidence, however, that the use of helmets reduces collisions and crashes." The report concludes that "the use of helmets is the only proven strategy for reducing bicyclist fatalities when crashes do occur." NHTSA report *Countermeasures That Work*, Sixth Edition, 2011, reports the effectiveness of Bicycle Helmet educational programs is still undetermined as different methods produce different results.

Objective

Encourage the use of bicycle helmets by all bicyclists. Develop and implement appropriate educational, media, local legislative, incentive, and enforcement campaigns targeted at higher-risk populations.

Lead Agency

Alaska Injury Prevention Center

Strategy 2: Implement engineering programs to enhance bicycle and pedestrian safety.

Action 2.1

Preserve the right-of-way for pedestrians and bicyclists during snow events

Background and Purpose

Analysis of Alaska crash data shows that a significant proportion of pedestrian fatalities and major injuries occur when winter road surface conditions are reported. While the data currently available do not include enough information to draw a direct line between the maintenance of walkways and crashes, it has been suggested that a lack of or poor maintenance of walkways may lead pedestrians to use cleared roadways instead of pedestrian facilities, resulting in more conflicts with motor vehicles and crashes. This should be investigated more thoroughly to determine contributing factors for these crashes. Currently available crash data do not show a significant problem with crashes by bicyclists during winter conditions,

Strategy 2: Implement engineering programs to enhance bicycle and pedestrian safety.

probably due to a small number of winter bicyclists. But there appear to be a growing number of winter bicyclists as fuel prices rise which could lead to a greater problem as more people choose to bicycle year round.

Objective

Encourage local and statewide transportation agencies to develop priorities to preserve the right-of-way for pedestrians and bicyclists when conducting snow removal activities. Aim to clear sidewalks and other walkways within a reasonable time by using a prioritized list after snow events.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.2

Encourage and support state and local agencies to incorporate accommodations of appropriate bicycle and pedestrian facilities into design standards

Background and Purpose

Specific sections of the Alaska Preconstruction Manual need to be revised to accommodate guidelines as prescribed by the American Association of State Highway and Transportation Officials (AASHTO). Other national guidelines affecting bicycle and pedestrian facilities have been released or are nearing release that should be considered and adopted as appropriate by DOT&PF and local agencies. The national guidelines seek to reduce conflicts, increase mobility, reduce congestion, and improve service and safety for all modes. Adoption of Complete Streets policies may be useful at the state and local levels to fully integrate all transportation modes in roadway design.

Objective

Encourage and support all state and local agencies to incorporate accommodations of appropriate bicycle and pedestrian facilities into design standards and guidelines.

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.3

Identify and implement appropriate engineering strategies to address high-crash locations involving bicyclists

Background and Purpose

The strategy is designed to increase safety program effectiveness by targeting limited resources to geographic areas and audiences where significant bicycle crash problems exist. The analysis of crash data will identify and target specific bicycle problem areas. While appropriate safety actions may include educational and enforcement aspects, the actions of this strategy emphasize engineering measures.

Objective

Apply appropriate engineering strategies to address specific bicycle-involved high-crash locations as identified in DOT&PF crash databases. Tailor mitigation strategies to crash patterns (for example, improving bikeway-roadway interface points and pavement markings on approaches to intersections to encourage vehicle/bike yielding/merging in advance of turning movements, etc.).

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.4

Identify and implement appropriate engineering strategies to address high-crash locations involving pedestrians

Background and Purpose

The strategy is designed to increase safety program effectiveness by targeting limited resources to geographic areas and audiences where significant pedestrian crash problems exist. The analysis of crash data will identify and target specific pedestrian problem areas. While appropriate safety actions may include educational and enforcement aspects, the actions of this strategy emphasize engineering measures. NHTSA *Countermeasures That Work*, Sixth Edition, 2011, rates Pedestrian Safety Zones, on which this strategy is based, as demonstrated to be effective in certain situations.

Objective

Apply appropriate engineering strategies to address specific pedestrian-related high-crash locations as identified in DOT&PF crash databases. Tailor mitigation strategies to crash patterns (for example, banning right turn on red movements, developing pedestrian refuge islands, etc.).

Lead Agency

Alaska Department of Transportation and Public Facilities

Action 2.5

Sweep road shoulders, bikeways, and pedestrian walkways as soon as practicable after adverse weather conditions

Background and Purpose

National data indicate that Alaskans bicycle to work more often than most other states; the U.S. Census Bureau's American Community Survey shows that Alaska ranks sixth in the nation in the proportion

Strategy 2: Implement engineering programs to enhance bicycle and pedestrian safety.

of adults who bike to work; our rate is nearly double the national average. An estimated 3,300 Alaskans bike to work each day on average, undoubtedly the number is far higher during the summer biking season. Each spring, warming temperatures melt snow and ice from the edges of roads and pathways revealing winter's accumulation of gravel, dust, and debris. Some of the debris may include broken glass, nails, or other sharp objects that are particularly hazardous to bicycle tires. Loose gravel and glass also pose dangers to motorcycles. Dust kicked up by passing motor vehicles poses not only visibility dangers but health risks for motorists and nearby residents. The dust, gravel, and debris often force bicyclists off the shoulders into the travel lanes, increasing the potential for conflicts. The objective of this strategy is to restore the availability of bikeways and walkways as promptly as practicable following spring melt each year.

Objective

Encourage DOT&PF and local public works agencies to complete sweeping of urban road shoulders, bikeways, and pedestrian walkways as soon as practicable following spring snow melts each year. Initiate more detailed research to examine possible link between bikeway and walkway maintenance and crashes.

Lead Agency

Alaska Department of Transportation and Public Facilities, Statewide Maintenance

Strategy 3: Implement evaluation programs to enhance bicycle and pedestrian safety.

Action 3.1

Collect and analyze bicycle and pedestrian crash and usage data

Background and Purpose

There is a need to improve the quality of bicycle and pedestrian crash data in Alaska and to identify contributing factors to these crashes. Knowing where pedestrians and bicyclists are in what numbers will be helpful to determine user needs and problem areas, serve as a base for data analysis, and enable better distribution of state resources to these populations and their infrastructure needs. The actions in this strategy include collecting and analyzing bicycle and pedestrian crash and usage data on an annual basis, tracking performance measures on an annual basis, and providing data on the DOT&PF bicycle and pedestrian web site.

Objective

Improve the quality of bicycle and pedestrian crash and usage data.

Lead Agency

Alaska DOT&PF Bicycle/Pedestrian Program

Action 3.2

Develop standardized survey protocol for helmet and high-visibility gear usage

Background and Purpose

There is a need to develop a better understanding of the use of protective gear by bicyclists in Alaska. Current data collection efforts are insufficient to provide reliable data to gauge helmet use. Furthermore, high-visibility gear use is not determined using current data collection methods. This strategy does not directly reduce injuries or fatalities, however, data will be acquired to help inform the implementation of other strategies.

Objective

Develop a standard format and protocol for helmet and high-visibility gear usage surveys.

Lead Agency

Alaska Injury Prevention Center

Strategy 1: Implement education/awareness practices to enhance motorcyclist safety.

Action 1.1

Promote rider education and licensing of all motorcycle riders

Background and Purpose

Possession of a motorcycle license/endorsement and training for new motorcycle riders are considered the cornerstones of motorcycle safety. Motorcycle licensing programs include an operator's manual, knowledge test, skills test, learner's permit, and license endorsement specifically designed for motorcycle operation. Licensing programs measure a rider's ability to perform basic motorcycle control functions and readiness to ride safely. Entry-level motorcycle rider training programs teach riders basic operational skills in a safe off-road environment, and ensure they receive the level of information and experience necessary to prepare them for real world riding situations. Motorcycle rider education and training has been shown to provide effective treatment for motorcycle crashes. To encourage motorcyclists to become licensed many states waive the knowledge and/or on-cycle skill test for successful completion of a state-approved motorcycle rider training course (Alaska waives both knowledge and skills test).

The purpose of this strategy is to increase the number of properly licensed and trained motorcycle operators by providing incentives to increase participation in the State's motorcycle training courses.

Objective

Increase the number of motorcycle operators who are properly licensed and trained.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.2

Increase funding for motorcycle safety programs and initiatives

Background and Purpose

Reducing motorcycle crashes requires a comprehensive, multi-disciplinary approach which addresses education and training, impaired riding, use of protective gear, motorist awareness, increasing motorcyclist visibility, roadway practices and improvements, and licensing.

The purpose of this strategy is to identify and seek additional sources of funding to support the creation and expansion of motorcycle safety programs and initiatives which have been proven effective in reducing motorcycle crashes.

Objective

Secure additional funding to create and expand motorcycle safety campaigns and initiatives.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.3

Encourage motorcycle operators and passengers to use protective equipment and to increase their visibility

Background and Purpose

Unlike other motor vehicle operators motorcyclists are exposed to the elements such as wind, weather conditions, and temperature extremes. Constant exposure to the elements can affect a rider's concentration, judgment, and coordination. Motorcyclists also are more vulnerable in a crash because they lack the protection afforded by other vehicles' passenger compartments and they are often harder to detect in traffic because of their smaller size. Motorcyclists should be encouraged to wear proper head-to-toe gear for protection, comfort, and to increase their visibility. Motorcycle operators also should be encouraged to increase their visibility on the roadway, including through the use of equipment such as modulating headlights and taillights.

The purposes of this strategy are to promote head-to-toe gear use by all motorcyclists and encourage increased visibility of motorcyclists and their motorcycle by wearing high-visibility protective equipment and using modulating headlights and taillights.

Objective

Riders will choose to wear full protective gear on every ride and utilize strategies to increase their visibility and the visibility of their motorcycle.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.4

Eliminate impaired motorcycle riding

Background and Purpose

Motorcycle operation requires the coordinated use of both hands and feet, balance at a stop, and greater control at slower speeds when the motorcycle is less stable. Anything that impairs a motorcycle operator's coordination, skill, and judgment can be fatal for the operator and their passenger. Alcohol test results for Alaskan motorcycle fatalities from 1999 to 2008 found that 44 percent of the motorcyclists had a Blood Alcohol Content (BAC) greater than zero.

The purposes of this strategy are to encourage motorcyclists to ride unimpaired, and educate and encourage on-site liquor service establishments that are frequented by motorcyclists to offer and promote ride home programs.

Strategy 1: Implement education/awareness practices to enhance motorcyclist safety.

Objective

Reduce the number of motorcycle crashes involving alcohol-impaired operators and passengers.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.5

Raise awareness of motorcyclists safety needs among motorists

Background and Purpose

Motorcycles represent a small number of the vehicles on Alaska's roadways, and many motorists don't expect to see motorcycles in traffic. Motorcycles are small in size which makes them visually harder to recognize and easier to be obstructed by door and roof pillars, outside mirrors, and blind spots.

The purpose of this strategy is to promote public education and outreach to motorists to raise their awareness of motorcycles in the traffic mix and their unique needs on the roadway.

Objective

Reduce the number of motorcycle crashes with other motor vehicles.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.6

Educate out-of-state and military motorcycle operators about riding in Alaska

Background and Purpose

Alaska is a "bucket list" destination for many motorcyclists in the lower 48 states. Approximately 15 percent of the State's motorcycle fatalities involve motorcyclists visiting Alaska from out of state. Many out-of-state riders aren't familiar with the laws and riding conditions in Alaska and need avenues to gather information to reduce their risk of injury when motorcycling on Alaska's roadways.

The purpose of this strategy is to provide information to out-of-state and military motorcycle riders about laws and special conditions specific to motorcycling in Alaska.

Objective

Reduce the number of out-of-state and military motorcyclists involved in crashes on Alaska's roadways.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.7

Increase number of grant applications and increase education of grant processes

Background and Purpose

Funding for motorcycle safety programs may appear to be a complicated process with a variety of sources and a mixture of deadlines. The purpose of this strategy is to provide transparency on the funding process, information on available funding, and a clear set of deadlines for grant applicants.

Objective

Build public awareness of funding opportunities for motorcycle-involved highway safety programs.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Action 1.8

Ensure emergency responders are fully aware and trained on helmet removal from crash victims

Background and Purpose

As motorcycle helmets come in a variety of sizes, shapes, and configurations, emergency responders need to have an understanding of how to properly remove helmets from victims of motorcycle crashes. Improper removal of a helmet may unintentionally aggravate cervical spine injuries.

Objective

Ensure emergency responders are aware of proper techniques to remove helmets from crash victims.

Lead Agency

Alaska Motorcycle Safety Advisory Committee

Strategy 2: Implement engineering programs to enhance motorcyclist safety.

Action 2.1

Improve roadway engineering practices for motorcyclists

Background and Purpose

This strategy is designed to increase safety program effectiveness by targeting limited resources to areas where significant motorcycle crash problems exist. The analysis of crash data will identify and target specific motorcycle problem areas. While appropriate safety actions may include educational and enforcement aspects, this strategy emphasizes engineering measures.

Objective

Apply appropriate engineering strategies to address specific motorcycle-involved crashes. Tailor mitigation strategies to contributing factors affecting motorcycle-involved crash.

Lead Agency

Alaska Department of Transportation and Public Facilities

Strategy 3: Implement enforcement programs to enhance motorcyclist safety.

Action 3.1

Eliminate impaired motorcycle riding

Background and Purpose

Motorcycle operation requires the coordinated use of both hands and feet, balance at a stop, and greater control at slower speeds when the motorcycle is less stable. Anything that impairs a motorcycle operator's coordination, skill, and judgment can be fatal for the operator and their passenger. Alcohol test results for Alaskan motorcycle fatalities from 1999 to 2008 found that 44 percent of the motorcyclists had a Blood Alcohol Content (BAC) greater than zero.

The purpose of this strategy is to enforce motorcycle laws and to train law enforcement on proper identification of impaired riding.

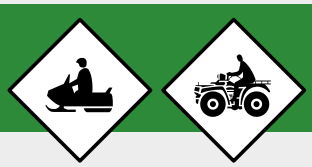
Objective

Reduce the number of motorcycle crashes involving alcohol-impaired operators and passengers.

Lead Agency

Alaska Department of Public Safety

Strategy 1: Implement education/awareness practices to enhance off-highway vehicle safety.



Action 1.1

Conduct public education and outreach to raise awareness of OHV safety issues

ATVs and snow machines are common forms of transportation, especially in rural Alaska where quite often they are the main or only modes of transportation. These OHVs are often used as work vehicles and vehicles that provide general mobility. While most ATV and snow machine travel occurs off the road, these vehicles also travel within the road rights-of-way (ROW). Snow machines and ATVs are allowed within the State Road ROW, but not on the road surface itself. Data collected by state agencies show that crashes and injuries are occurring within and outside the highway ROW. The purposes of this strategy are to educate Alaskans about the dangers of OHV use and the importance of safety while using these vehicles.

Objective

Increase safety awareness by educating the public on the dangers of OHVs through public outreach initiatives.

Lead Agency

Alaska Injury Prevention Center

Strategy 2: Implement evaluation programs to enhance off-highway vehicle safety.

Action 2.1

Establish a multiagency task force to address OHV safety issues

Background

No one state or public agency has purview over off-highway vehicle (OHV) use or training in Alaska. Crashes involving ATVs and snow machines were identified as a significant safety issue for Alaska during the 2003 Safety-Conscious Planning Summit. The purpose of the multiagency task force would be to further examine this problem and the data available related to this problem; identify potential solutions or strategies that can be implemented at the local level; study what has been done and what has worked in other states and communities that have significant OHV use; implement effective strategies; and raise the overall visibility of this issue with the public, local governments, and the legislature.

Objective

Greater collaboration among agencies and organizations (public and private) with an interest in OHV use in Alaska.

Lead Agency

Alaska Injury Prevention Center

Task Forces

Two task forces have been established to investigate trends and contributing factors, data issues, funding, and legislative issues pertaining to the emerging areas of **Aggressive Driving** and **Distracted Driving** in the State of Alaska. Each task force will meet on a periodic basis to review issues pertaining to their topic area.

According to the National Highway Traffic Safety Administration (NHTSA), aggressive driving is defined as occurring when "an individual commits a combination of moving traffic offenses so as to endanger other persons or property." The Aggressive Driving task force will look at how aggressive driving issues are affecting Alaskans and will develop appropriate countermeasures to tackle the problem. Alaska data since 1995 shows a continuous increase in the number of deaths and injuries attributed to speed. This task force will help establish a legal definition of aggressive driving and determine the ability to enforce this type of behavior. Activities in other states will be reviewed, including legislation, enforcement programs, initiatives and coalitions, technological applications, and public information and education programs.

The development of new technologies has added a whole new dimension in the area of distracted driving. In the past, drivers were driving distracted because of inattentive tasks such as adjusting the radio, eating, reading, and applying cosmetics. New technologies have introduced telephone use, mobile web surfing, and texting as additional distractions to the driver. A 2009 Traffic Safety Culture Survey conducted by the AAA Foundation for Traffic Safety found that 35 percent of drivers surveyed felt less safe on the road today than they did 5 years ago. Thirty-one percent of those cited distracted driving as the reason. According to NHTSA data, drivers using hand-held cell phones at any given moment has increased from 4 percent in 2002 to 6 percent in 2008. Data-gathering efforts to determine the level of distraction to drivers is at its nascent stage and requires additional research. The Distracted Driving task force will look at how distracted driving issues are affecting Alaskans and will help determine appropriate countermeasures.

Toward Zero Deaths

Everyone Counts on Alaska's Roadways

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