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MAINE STRATEGIC HIGHWAY SAFETY PLAN 2012





Paul R. LePage
GOVERNOR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

David Bernhardt
COMMISSIONER

June 28, 2012

RE: Maine's update to the "*Strategic Highway Safety Plan (SHSP)*"

This letter indicates our support for the 2nd edition of Maine's Strategic Highway Safety Plan (SHSP). This newest version of the SHSP addresses behavioral, enforcement, engineering and emergency response aspects. It represents great team work between highway safety partners and the plan reflects data driven strategies developed to improve safety on our roads.

Maine experiences nearly 30,000 crashes each year that, too often have devastating personal impacts. Maine has seen a recent 5 year annual average of more than 150 deaths and thousands of injuries. Crashes are almost always preventable and the SHSP is developed to outline the major common areas of safety concern. The goal of Maine's SHSP is to identify key transportation safety issues and to develop effective action plans that would improve public safety. The Plan is a core resource to guide investment decisions toward programs and countermeasure strategies that will best achieve a significant reduction in highway fatalities and serious injuries.

Maine's highway safety statistics are showing that our highway safety partners are making a difference. Crashes and resulting deaths and injuries have been trending down. In 2011, we experienced a recent low of 136 traffic fatalities. While this is good news, we know that coordinated efforts must continue, as fatalities have increased thus far for 2012. This plan requires ongoing attention, and it is important to continually discuss, assess, update and implement safety strategies outlined in the SHSP. Maine supports the national goal of Toward Zero Deaths.

Sincerely yours,

David Bernhardt, P.E.
Commissioner
Maine Department of Transportation

John E. Morris
Commissioner
Maine Department of Public Safety



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U.S. Department
of Transportation
**Federal Highway
Administration**

Maine Division

November 26, 2012

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In Reply Refer To:
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Subject: Acknowledgement of Maine Department of Transportation's 2012 Strategic Highway Safety Plan (SHSP) Revisions

Dear Commissioners:

When the Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012, the Highway Safety Improvement Program (HSIP) was continued as a core federal-aid program. Legislated under 23 U.S.C. §148, the HSIP continues to require a Strategic Highway Safety Plan. The purpose of a SHSP is to assist a State with identifying key transportation safety needs and guide investment decisions toward those strategies that have been shown to achieve a significant reduction in highway fatalities and serious injuries, along with reducing their subsequent costs to society. Maine's Strategic Highway Safety Plan is the guiding document that identifies data-driven strategies and countermeasures to reduce fatalities and serious injuries on Maine roads. It also promotes collaboration among safety stakeholders and identifies common goals.

Our increasing fatality numbers underscore the importance of continually assessing, updating and implementing safety strategies outlined in the SHSP. While Maine's last formal update to the SHSP was in January 2011, we are encouraged that Maine frequently revisits and adjusts their SHSP based on evaluation of current data and existing strategies. This letter serves as the Federal Highway Administration's acknowledgement of the 2012 revisions made to the SHSP.

The next official update of the SHSP will be subject to MAP-21 legislation and regulation. Guidance will be published by FHWA in the coming months. Some of the changes from the previous SAFETEA-LU legislation include a defined regular update cycle, performance targets, and a penalty for not having an approved update within an established timeframe (to be

determined). FHWA's MAP-21 website will be updated periodically as regulation and guidance become available (<http://www.fhwa.dot.gov/map21/legislation.cfm>).

Should you have any questions, please contact me at 512-4911 or Brian Lawrence, Safety Engineer, at 512-4920.

Sincerely yours,



Todd D. Jorgensen
Division Administrator

cc:

Cheryl Martin, FHWA
Kenneth Sweeney, Maine DOT
Duane Brunell, Maine DOT
Lauren Stewart, Maine BHS
Michael Geraci, NHTSA
Alan Vitcavage, FMCSA

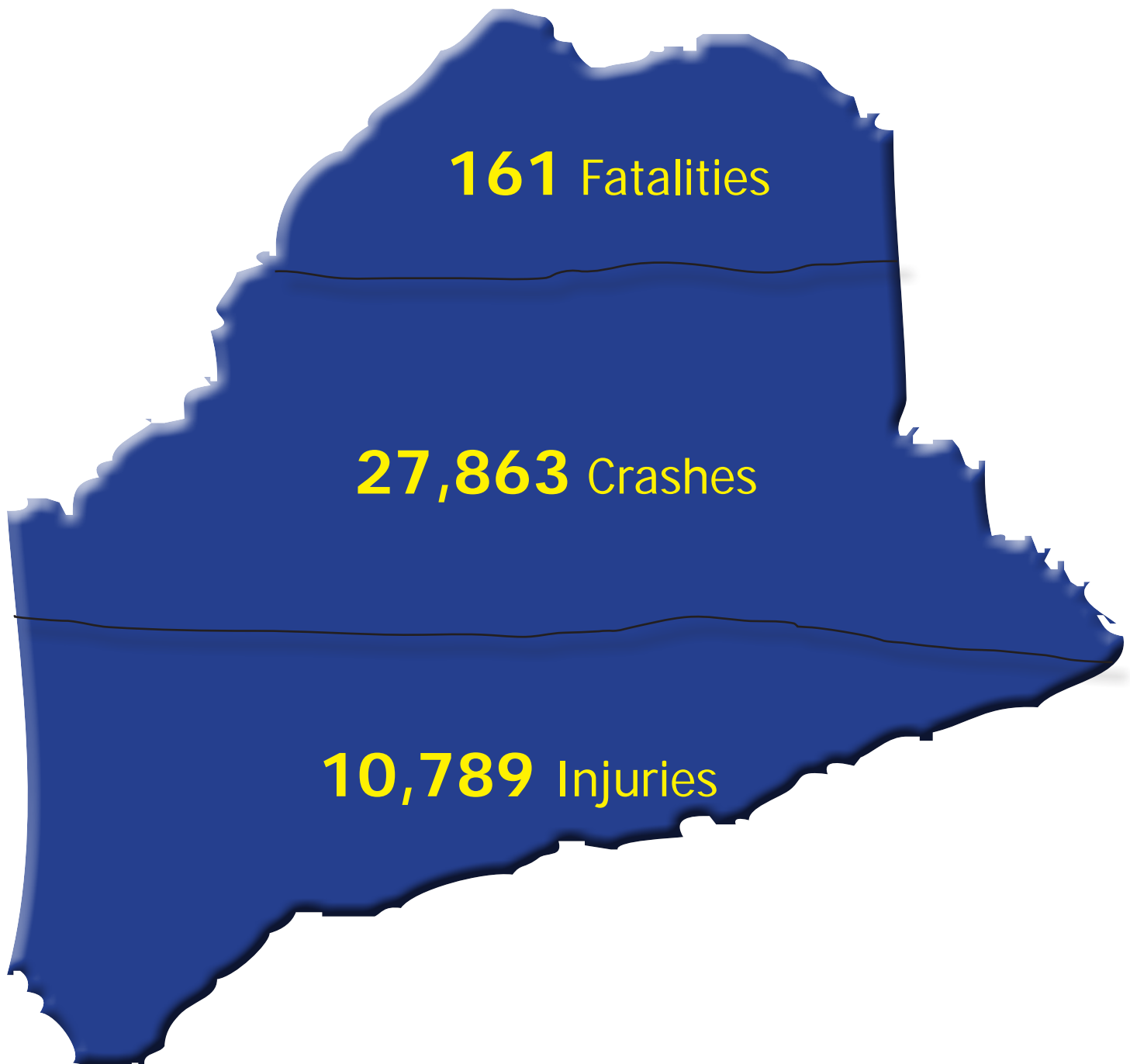
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MAINE 2010 CRASH RESULTS

Maine experienced a slight increase in fatalities (161) since its recent low in 2008 (155). Fatalities continue at a decreased level partially due to reduced travel resulting from increased energy costs, as well as other factors.

- Crash Rate decreased in 2010, but is above the national average. Maine's crash rate is 190.5 Crashes/Hundred Million Vehicle Miles (HMVM). The latest national rate is 184 (2009)
- Maine's fatality rate of 1.11 Fatalities/HMVM has increased the last two years compared to the best recent year (2008).
- Maine's Fatality Rate is even with the national rate.



MAINE 2010 CRASH RESULTS

Crash trends of strategic interest are summarized below with the latest 2009 results shown. All crash types are important, and strategic effort in any focused safety area has merit. The priority focus areas below were selected based largely on the number of resulting fatalities. If effective strategies are implemented, attention to these focus areas would have the most impact in reducing crashes and the resulting injuries and death. As is the case in this table, most results reported in other sections will be based on the most recent 5-year annual average (5YAA), unless otherwise stated.

LEAD FOCUS AREAS	5 Year Average Annual Crashes (06-10)	5 Year Average Annual Fatalities (06-10)	Severity Comparison: Fatalities/1000 Crashes
ALL CRASHES	30,750	169.2	5.50
Lane Departure	8,727	118.8	13.61
Speed	5,670	67.6	11.92
Unbelted		55.4	
16-24 Year Old	11,283	51.6	4.57
16-18 Year Old	3,334	14.8	4.44
Impaired Driving (Alcohol)	1,566	55	35.12
Distracted Driving	11,348	42.6	3.75
Mature Drivers (65+ years old)	5,010	33.4	6.67
Motorcycles	624	20.6	33.01
OTHER STRATEGIC AREAS			
Winter	6,215	16.4	2.64
Intersections	5,564	21.6	3.88
Large Trucks (5 axle +)	749	12	16.02
Pedestrians	249	12.2	49.00
Bicycles	192	2	10.42
Large Animal (Moose)	561	2.2	3.92
Operating After Suspension	650	10.6	16.31

National crash and fatality rates are from USDOT Bureau of Transportation Statistics

Maine did pass a primary seat belt law effective 4/1/2008

Data Notes: 1. Total Fatality counts are from Maine Fatal Accident Report System (FARS). Crash data is from MaineDOT systems that track crashes on public roads.

2. Crashes can be caused by a combination of factors, so one crash may have relationships to several of the categories listed in this report.

Note: See additional background on these topics in MTSC's The Status of Transportation Safety in Maine.

OUR GOAL

Maine's overall safety goal is to achieve a fatality rate of less than 1.0 fatalities/hundred million vehicle miles traveled by 2014.

Almost every other day a person loses their life in a Maine vehicular crash. Crashes occur on our roads nearly one hundred times a day. When looking at the underlying story lines related to these frequent and tragic events, one consistently finds that these occurrences are almost always preventable. Many stakeholders are working together to improve these results and this Strategic Highway Safety Plan is established to develop action plans related to Enforcement, Education, Engineering and Emergency Response that are necessary to affect safety improvements. The Plan defines the crash focus areas and outlines the strategies that the various stakeholders can employ together in a coordinated, comprehensive program. The effectiveness of these strategies and crash performance results will be periodically evaluated and updated.

Page 9 identifies sixteen focus areas, each lead by a safety champion, including Maine's overall crash performance and focus area crash results. The focus area champions will be leading the efforts in these strategic areas. Each section will briefly cover the strategic focus area, improvement goal, and related strategies designed to achieve that goal. The strategies include the reasoning for each strategy, identifies the lead agency and the timing for the activity, cover crash results and then outline the lead strategic activities. Each focus area includes ten-year crash charts illustrating a dashed light blue estimated trend line.

Focus Area Champions



Duane Brunell (MaineDOT) - Lane Departure

Sgt Rick Doyon (Biddeford Police Department) - Illegal/Unsafe Speed

Lauren Stewart (Maine Bureau of Highway Safety)

- Safety Belts
- Traffic Records

Katharyn Zwicker (Maine Center for Disease Control) - Younger Drivers

Sgt. Don Finnegan (Rockland Police Department) - Impaired Driving

Pat Moody (AAA, Northern New England) - Distracted Driving

Patty Morneault (Maine Bureau of Motor Vehicles) - Mature Drivers

Eric Bellavance (Maine Bureau of Motor Vehicles) - Motorcycles

Greg Stone (Maine Turnpike Authority) - Winter

Matt Philbrick (MaineDOT) - Intersections

Brian Parke (Maine Motor Transport Association) - Large Trucks

Dan Stewart (MaineDOT) - Pedestrians & Bicycles

Richard Bostwick (MaineDOT) - Large Animals

Sgt. Owen Davis (York Police Department) - Operating After Suspension

Jay Bradshaw (Maine Emergency Medical Services) - Emergency Services

LANE DEPARTURE

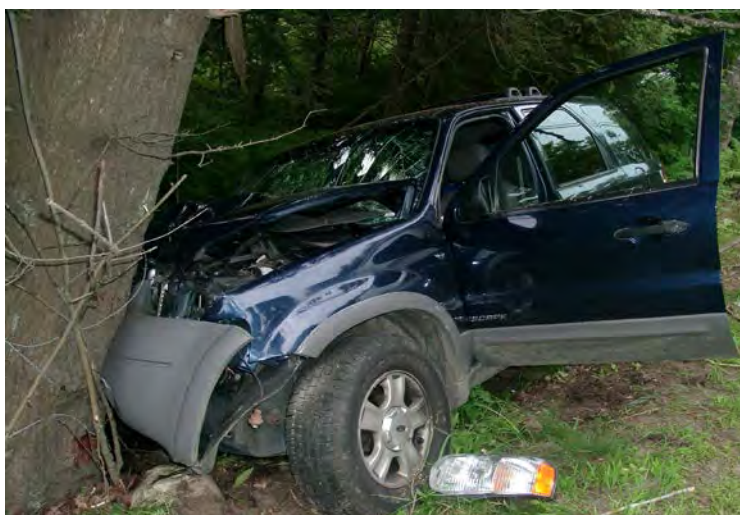
OUR CHALLENGE

A lane departure crash is the outcome of what happens when a vehicle leaves its designated lane and is involved in either a head-on or lane departure crash. The results are devastating whether the errant vehicle collides head-on with an oncoming vehicle or slams into a fixed object, rolls over, or has some other severe impact.

Lane departure is Maine's most frequent fatal crash type.

- Lane departure (LD) **crashes** account for **33%** of Maine's crash total (5-year annual average).
- An average of 125 fatalities result from LD crashes. This number has remained relatively unchanged in the last 10 years, and represents **73%** of Maine's total **crash fatalities** (about 33% of LD fatalities were head-on, 67% were run-off-road).
- LD crashes have high severity. For comparison

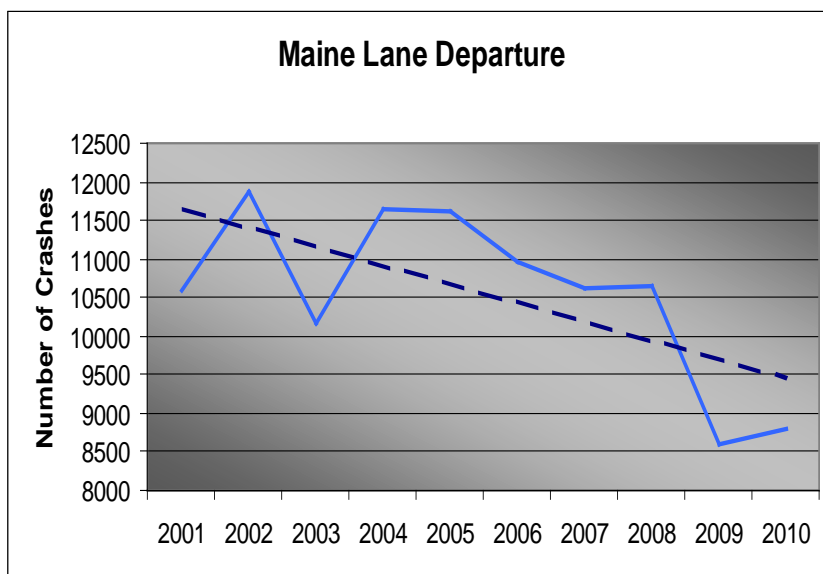
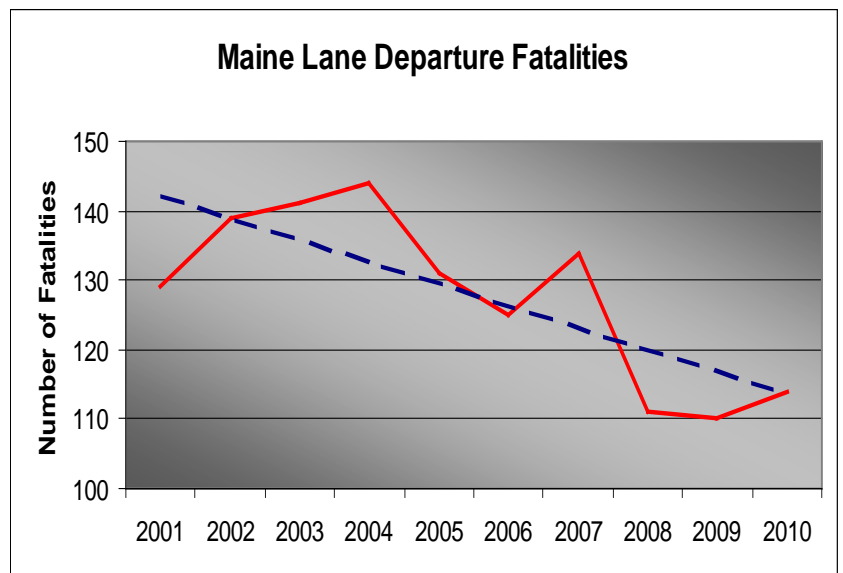
purposes, a fatality occurs in 5 out of 1,000 crashes on average for all crash types; for run-off-the-road the rate increases to 9 fatalities out of 1,000 crashes; and for head-on the rate is 45 fatalities in every 1,000 crashes.



- 48% of LD fatalities were speed related.
- Weather plays a role in Maine's LD crashes. On wintry road surfaces (snow, slush, ice), 4,600 crashes a year result in an average of 14 fatalities. On wet road surfaces, 1,375 crashes result in 18 fatalities annually.
- Most fatalities did NOT occur on major or interstate highways. 57% of LD fatalities occurred on these non-major highway road classes: major collectors (23%), minor collectors (12%) and local roads (22%).

OUR GOAL

Reduce Lane Departure fatalities 10% by 2014 (to a 5YAA of 112)



LANE DEPARTURE STRATEGIES

Identify and evaluate key corridors that experience the highest incidence of Lane Departure crashes.

- **Reasoning:** To get the most life and cost benefits out of improvements, the corridors with crash clusters or high crash/fatality incidence should be identified as priority candidates for improvement projects.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Enhance speed enforcement efforts by targeting high incidence locations through Strategic Area Focused Enforcement (SAFE) – (see also the Speed section of this plan).

- **Reasoning:** A major driver-contributing factor that leads to lane departure crashes is speed. Enhanced speed enforcement would have a direct benefit to reducing lane departure crashes and fatalities.
- **Lead:** State police/Sheriffs and local enforcement agencies
- **Timing:** Ongoing – high visibility during summer months

Merge “safety” thinking into the MaineDOT procedures and project planning through the use of Road Safety Audits and corridor analysis to help prioritize future safety needs.

- **Reasoning:** Provides a coordinated, collective look at selected corridors to allow development of holistic, efficient and well-thought-out improvement plans.
- **Lead:** MaineDOT
- **Timing:** Ongoing through internal training/communication



Reduce exposure to interstate head-on crashes by installing median cable guardrail on a phased basis; starting with I-295 (began in 2009).

- **Reasoning:** Where narrow medians exist (usually 30' wide or less) there is susceptibility for out-of-control vehicles to cross the median and head into the opposing, oncoming lanes – a dangerous and severe exposure for all involved vehicles. Median cable guardrails can stop the crossing vehicle (including many trucks) before infringing into oncoming lanes. The design of the tensioned cables also reduces the degree impact of the involved vehicle when compared to striking a rigid rail system.
- **Lead:** MaineDOT
- **Timing:** First installation completed on I-295 and Route 1, Brunswick in 2009. Additional interstate installations were completed on I-295 in 2010 and more are planned for 2011 and after.

Identify priority areas where edge-line and center-line rumble strips should be provided to reduce run-off-the-road and head-on crashes. Identify additional corridors for 2011 and after.

- **Reasoning:** Rumble strips have demonstrated both nationally and here in Maine to effectively reduce head on and run off road crashes. Maine has two rumble strip installations currently on Route 1, Woolwich and Route 4 Turner – each has shown significant crash reduction.
- **Lead:** MaineDOT
- **Timing:** Next installation in 2011

Use Safety Edge treatment on key corridors to minimize sudden drop offs and vehicle transition issues from the shoulder to the travel lane (done on 2009 I-295 paving, and need to identify other priority opportunities).

- **Reasoning:** Provides a potential solution to over-correction issues.
- **Lead:** MaineDOT
- **Timing:** Currently being piloted to see if installation is viable.



Provide advance warning signage, advisory speed signs, flashing beacons, curve markings on pavement, rumble strip in advance of curve, transverse lines with decreasing spacing, edge-lines to narrow lane width.

- **Reasoning:** Provides clear driver cues where roads situations may not be otherwise clear.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Enhance delineation such as pavement markings (durable, all-weather, raised, wider, more reflective), chevrons, post-mounted delineators, guardrail delineators, LED in-pavement luminaries, LED barrier-mounted tubes.

- **Reasoning:** Provides clear driver cues to help motorists maintain lane discipline.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Coordinate efforts of MaineDOT with local municipalities through continued Local Technical Assistance Program (LTAP) and other municipal outreach. Utilize High Risk Rural Roads funding to help achieve safety improvements. A MaineDOT training module is being developed to help identify safety needs and varied solutions, particularly those that are low cost.

- **Reasoning:** Extends communication of needed strategies to a municipal audience for local road needs.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Behavior strategies – include Lane Departure message in broader outreach and media efforts.

- **Reasoning:** LD crashes result from a wide range of driver behaviors, many of those identified elsewhere in this SHSP. These behaviors (e.g.: speed, impaired driving, fatigue, wintry conditions, safety belt usage) contribute to LD issues and severity of crash injuries. Efforts to engage the driving public and affect change in those behaviors will need to be a partnered, ongoing effort.
- **Lead:** Cooperative efforts with all agencies as opportunities are identified.
- **Timing:** Ongoing

ILLEGAL/UNSAFE SPEED

OUR CHALLENGE

This category includes crashes that result from speed in excess of posted speed limits or that occur when road or weather conditions dictate a lower, prudent speed. Speed is cited as a factor in an average of 6,100 crashes/year.

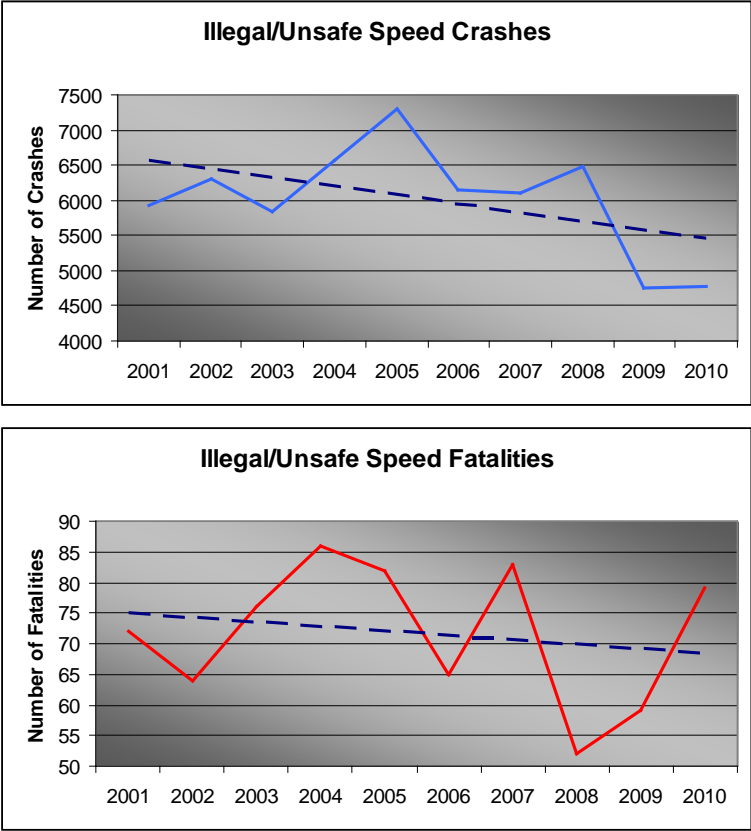
Speed-related crashes account for 19% of the total crashes and 42% of total fatalities.

- The biggest concern with excessive speed is it can lead to other driver errors and serious injuries.
- Adjusting speed for weather-related road conditions is a problem. Unsafe speed was noted in 3,500 crashes on snowy, slushy or icy road surfaces, and another 700 occurred on wet road surfaces.



OUR GOAL

- Reduce speed related fatalities by 5% by 2014 (to a 5YAA of 66)
- Increase public awareness
- Increase consistent enforcement



ILLEGAL/UNSAFE SPEED STRATEGIES

Enhance speed enforcement efforts by targeting high incident locations. These locations can be determined by crashes, citations/warnings for speed, complaints, and speed data recorders.

Emphasize consistent speed enforcement within an agency. Eventually the focus can promulgate from agency to agency.

- **Lead Agency:** State/Local law enforcement, Department of Public Safety (DPS)
- **Timing:** Ongoing through Bureau of Highway Safety (BHS) funding

Continue to provide state and local law enforcement agencies with funding opportunities to participate in target enforcement campaigns. The projects may consist of speed, seat belt, and OUI enforcement strategies.

- **Lead Agency:** Department of Public Safety
- **Timing:** Ongoing through BHS - enhance through additional incentive funding

Provide funds to state and local law enforcement agencies to acquire needed equipment such as LIDAR, radar units, in-car video, speed measuring trailers, speed/traffic data recorders, and computers.

- **Lead Agency:** Department of Public Safety
- **Timing:** Ongoing through BHS - enhance through additional incentive funding

Provide equipment incentives to state and local law enforcement agencies that consistently enforce traffic related activities when not performing Department of Public Safety campaigns.

- **Lead Agency:** BHS/Department of Public Safety
- **Timing:** January 2011

Continue to use aircraft for traffic enforcement

- **Lead Agency:** State Police
- **Timing:** Ongoing

Continue to produce public service announcements via television, web, radio, and newspapers. In addition to the seat belt and OUI strategies, emphasis will placed on speed and its effect on public safety.

- **Lead Agency:** BHS/Department of Public Safety
- **Timing:** Ongoing through BHS funding

Ensure that streets are clearly and properly posted with speed limit signage and that it is consistent with DOT-approved speed zones. When appropriate and if feasible, the speed limit can be painted on the roadway.

- **Lead Agency:** State/Local law enforcement, MaineDOT
- **Timing:** January 2011

STRATEGIES CONT'D

Legislative Considerations

Reasoning (For All the Legislative Strategies Below)

Aggressive speeds often contribute to serious, if not fatal, crashes. In the interest of public safety, we must institute mechanisms to protect the people that travel Maine roads. It is the intent to increase driver accountability and to attain voluntary compliance through legislative changes. Hence, this can be accomplished by increased fines and/or license suspension. Changing driver behavior to embrace less aggressive driving can be advantageous to protecting people traversing Maine Roads.

Evaluate legislation that would accumulate speeding convictions that have occurred during a ten-year period. For example, three or more convictions for speeding of 20 or more mph over the speed limit within a ten-year period would result in the licensee losing his/her privilege to operate (after hearing) in the State of Maine for a period of 30 days. This suggestion will require coordination of law enforcement and Bureau of Motor Vehicles (BMV).

- **Lead Agency:** Secretary of State, BMV, BHS/DPS
- **Timing:** January 2011

Assess whether legislation would enhance safety by adding a statutory surcharge for

speeding convictions of 20 mph or more over the speed limit. A consideration that the additional surcharge could go to the Department of Public Safety to be used for enforcement campaigns and equipment should be part of the discussion.

- **Lead Agency:** Secretary of State, BMV, BHS/DPS, Violations Bureau
- **Timing;** January 2011

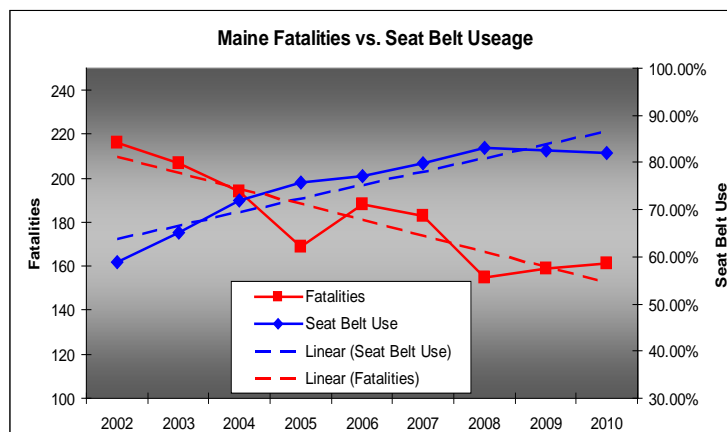
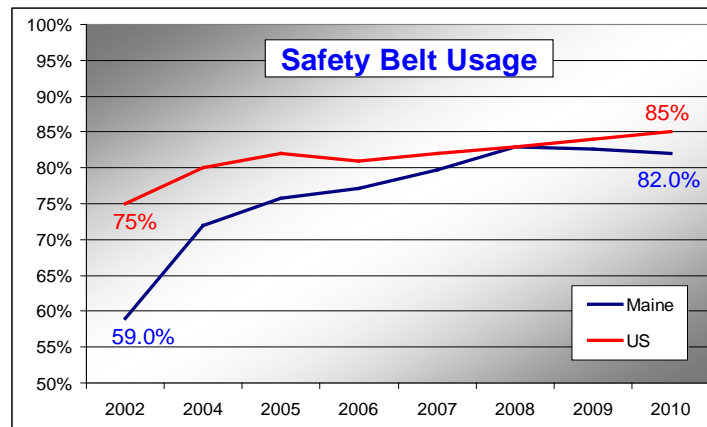


SAFETY BELTS

OUR CHALLENGE

Maine's recently enacted Primary Seat Belt law has gained more compliance, but many unbelted fatalities continue to occur. Maine's seat belt usage rate of 82.6% in 2009 remained close to the 2008 level. The rate is slightly below the national average usage rate of 84%. Maine's usage rate has steadily increased since 2002. Non-use of seat belts does impact the fatality results in some of the other crash topic sections. The charts below show that as Maine's seat belt use increases, the number of unbelted fatalities decreases. 2009, there were 50 unbelted fatalities in passenger vehicles. This is 42.7% of the 117 passenger

motor vehicle crash fatalities (does not include large trucks, pedestrians, bicycles, motorcycles, ATV's, etc.)



OUR GOAL

Reduce unrestrained passenger vehicle occupant fatalities by 5% by December 31, 2014 (to a 5YAA of 57)



SAFETY BELT STRATEGIES

Fund a full time seat belt educator to provide seat belt education and outreach to individuals of all ages through the use of convincer and roll-over simulator demonstrations and public presentations. This program reaches thousands of Maine citizens each year and provides education to all Maine school grades K-12, private business and state agencies.

- **Reasoning:** Motor vehicle fatalities involving unrestrained occupants continues to slightly increase.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** Annual

Provide grant funding to Maine law enforcement agencies to participate in the May and November NHTSA Click It Or Ticket national safety belt high visibility enforcement crackdown periods. Grant funding will be provided for dedicated overtime safety belt enforcement details and public education.

- **Reasoning:** Increased education and high-visibility enforcement (HVE) will decrease crashes and fatalities related to unstrained motor vehicle occupants. NHTSA funding is contingent on state support and participation in NHTSA HVE campaigns.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** Annual

In conjunction with the University of Southern Maine's Muskie Research Center, conduct an observational survey to determine safety belt use in Maine.

- **Reasoning:** Evaluation of Maine's HVE and education efforts. Requirement for NHTSA funding.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** Annual

STRATEGIES CONT'D

Promote a dedicated outreach program to educate Maine minority populations regarding the benefits of using safety belts and child restraints. This project may include production of print materials and paid media.

- **Reasoning:** Maine's increasing minority population could benefit from education regarding the proper use of child restraints.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** Annual

Support a project with the Teen Driver Safety Committee or Strategic Highway Safety Plan Teen Driver Committee that is designed to increase the teen seat belt usage rate and decrease unbelted injuries with teens.

- **Reasoning:** Data indicates that Maine teens are not using occupant restraints and are frequently injured or killed as a result of motor vehicle crashes.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** 2011

Increase education to parents regarding child occupant protection/passenger safety for the age group of 8-12.

- **Reasoning:** Children of this age group should be riding restrained in the back seat to reduce the possibility of serious injury in motor vehicle crashes
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** 2011

YOUNGER DRIVERS

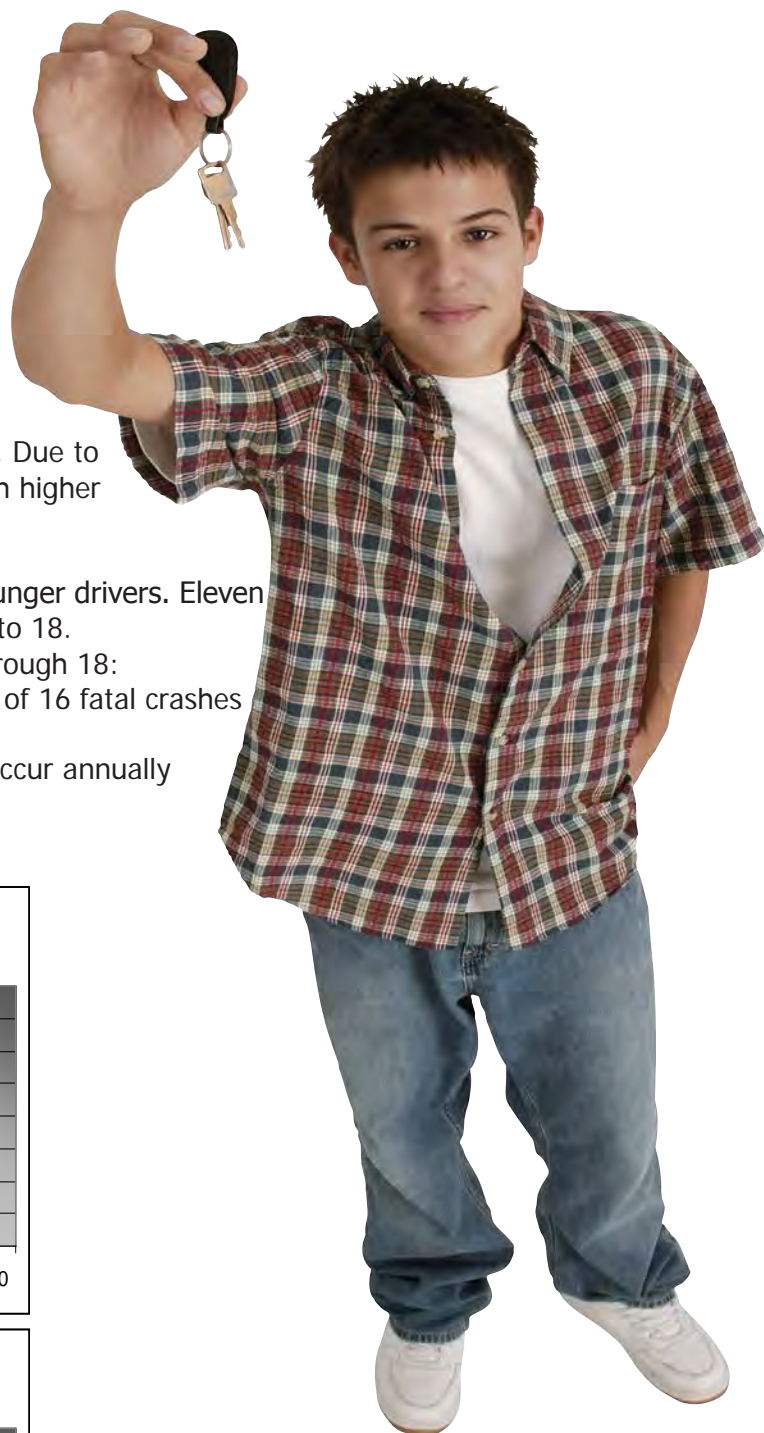
OUR CHALLENGE

Defined here as between the ages of 16 and 24, with particular focus on the youngest of drivers, aged 16 to 18. Due to inexperience and other factors, young drivers have a much higher crash and fatality rate than the average driver.

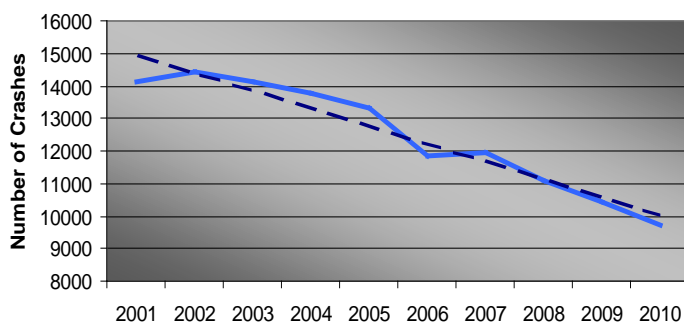
Thirty-two percent of total Maine traffic deaths involve younger drivers. Eleven percent of Maine's crash fatalities involve drivers aged 16 to 18.

Crash facts about Maine's youngest drivers – aged 16 through 18:

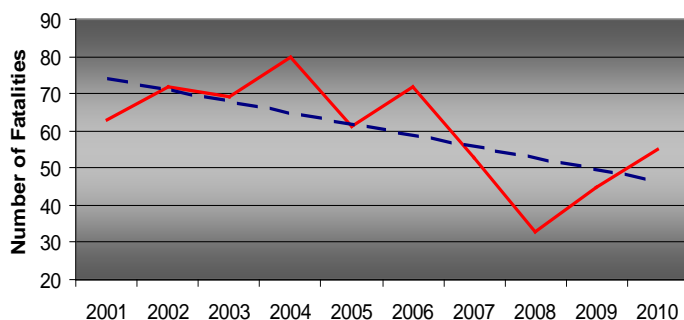
- Teen drivers are involved in an annual average of 16 fatal crashes that result in 19 deaths.
- More than 90 alcohol or drug-related crashes occur annually (5.5% of all alcohol/drug related crashes).
- Crash and fatality numbers are decreasing.



16-24 Year Old Driver Crashes



16-24 Year Old Fatalities



OUR GOAL

- Reduce the number of drivers 20 or younger that are involved in fatal crashes by 5% by 2014 (from 20.6 to 19.6)
- Reduce young driver crash fatalities by 10% by 2014
- Reduce alcohol related crashes for underage operators by 10% by 2014
- Promote safe teen driving in Maine

The Maine Teen Driver Safety Committee (TDSC), convened in 2009, is comprised of individuals representing Maine agencies including public safety, transportation, Health and Human Services, motor vehicles and organizations such as Northern New England AAA. As part of its work, the committee developed a teen driver safety strategic plan. The plan contains sample activities for each identified strategy and intended to be one component of a comprehensive community-based effort to address teen driver safety issues.

In order to encourage and enhance the opportunity for success, the TDSC will serve as a partner, providing technical assistance as requested. (The Underage Drinking Task Force, facilitated through the Office of Substance Abuse, has also recently been formed.)

This committee developed a sample of activities for the strategies provided below. These activities, although they can be implemented at the local, county or state level, are intended to be a guide and a resource toolkit for the development of a community based effort.



YOUNGER DRIVER STRATEGIES

Target Audience: 16-18 year old drivers

Reasoning: (for all strategies listed below)

During 2004-2008, unintentional motor vehicle traffic crashes were the leading cause of injury hospital discharge for over 1,100 Maine teens, ages 15-24. From 2003-2007, unintentional motor vehicle traffic crashes were the leading cause of death to Maine residents ages 15-24 (220) and the 4th leading cause of outpatient emergency department visits (17,130).

On the 2007 Youth Risk Behavior Survey, only 51.5% of high school students reported they always wore a seat belt when riding in a car driven by someone else in the past 30 days and 11.2% said they rarely or never wore a seat belt during that time period.

Methods of increasing the safety of teen drivers and their teenage passengers are greatly needed and vigorously sought. Graduated Driver Licensing (GDL) is being continually evaluated and overall, is effective.

Lead Agency: Bureau of Highway Safety

Timing: Underway – Strategic Plan being developed.

Integrate variety of partners and stakeholders to participate in the Teen Driver Safety Committee (TDSC) activities.

- Recruit partners and stakeholders to implement the TDSC strategic plan.
 - Activity: Create a fact sheet describing the work of the TDSC.
 - Activity: Create and maintain a partner and stakeholder distribution list.
- Provide partners and stakeholders with the most current research and evidence-based teen driver safety-focused programs
 - Activity: Develop a directory of the most current research and evidence-based teen driver safety information and programs.
 - Activity: Collect and distribute related crash data involving teens.
- Create a Maine-focused teen driving safety awareness toolkit for use and distribution at the local and state levels.
 - Activity: Research other states for already developed toolkits.
- Create an evaluation plan for the use of the TDS Awareness toolkit.

Increase parental involvement in developing a safe teen driver. Provide parent focused education regarding teen driver issues.

Topics:

- Current Graduated Drivers License and state laws
- Modeling Good Driving Habits
- Setting Rules and Consequences for Actions
- Monitoring Teen Driver Behaviors

Activities:

- Brainstorm various venues to promote parental education
- Create parent-based website to include information listed above
- Create fact sheets on the issues identified above.

STRATEGIES CONT'D

Objectives:

1. Integrate variety of partners and stakeholders to participate in the Teen Driver Safety Committee activities
 - Kendra Smith, representing Justice4Jeff.org and Savespeed4the track.org, and Rebecca Ireland joined the TDSC.
 - Cindy Libby, the mother of Emma Libby, a 14 year-old stock car racer from the Bangor area, has expressed interest in joining.

The following relate to all objectives below:

- A list of driver safety resources and links has been compiled for inclusion on the Maine Transportation Safety Coalition website.
 - National Youth Traffic Safety Event held at Auburn Mall on May 11th. Participants included: Bureau of Highway Safety (BHS), State Farm Insurance, Bureau of Motor Vehicles, officers from Auburn and Lewiston Police Departments, AAA, and Kendra Smith, representing Justice4Jeff.org and Savespeed4the track.org. Over 30 teens took part in the driving simulators exercises. Emma Libby, a 14-year old stock car racer from the Bangor area, attended the event. Emma promotes safe driving on the roads and to keep the speed on the track. BHS provided promotional teen safety items when speaking with teen drivers and parents. Roy's Driving School provided golf carts and driving instructors to demonstrate and discuss the dangers of drunk driving and distracted driving.
 - County and statewide driving related survey data completed by teens provided by Maine Youth Drug and Alcohol Use Survey (MYDAUS) was distributed upon request.
 - The Maine CDC's Injury Prevention Program will partner with the BHS to develop a grant Katharyn that focuses on seat belt usage among 16-19 year olds. This effort is in partnership with the Injury Prevention Program's 5-year grant with the US CDC.
 - MTSC Annual Meeting took place June 7th at the Coastal Maine Botanical Gardens in Boothbay. Safety Champion awards were presented to Secretary of State, Charlie Summers, and representatives of WCSH6, Berlin City Motors, Moody's Collision Centers, AAA, Bangor Police, MDOT and the Federal Highway Administration.
 - The 2011 Northeast Transportation Safety Conference: "Toward Zero Deaths, Building on Success" was held on November 8 & 9 in Freeport. Over 100 individuals attended from as far away Ohio. Topics included: Teen Texting While Driving Initiative in Cumberland County – presented by Alex Hughes, City of Portland , and Teen Driving Issues presented by Officer Rocco Navarro of South Portland Police Dept. and Officer Owen Davis of York Police Dept.
2. Increase parental involvement in developing a safe teen driver
 3. Decrease teen driving related crashes, injuries, and fatalities due to alcohol and other drugs
 4. Decrease teen driving related crashes, injuries, and fatalities due to unsafe speed
 5. Decrease teen driving related crashes, injuries, and fatalities due to lack of seatbelt use
 6. Decrease teen driving related crashes, injuries, and fatalities due to distractions
 7. Decrease teen driving related crashes, injuries, and fatalities due to late night driving

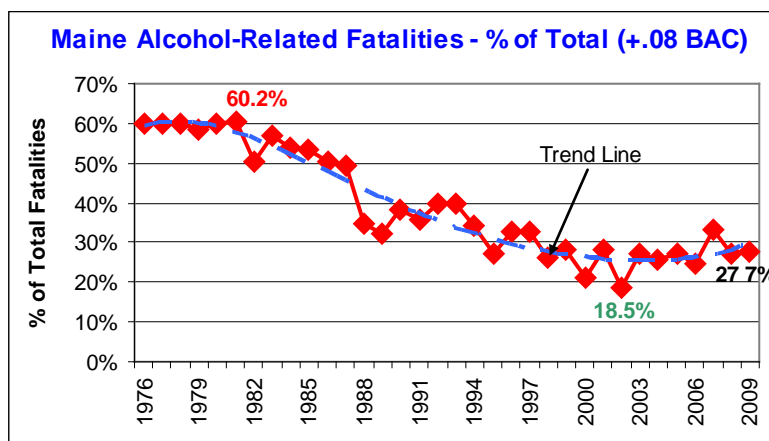
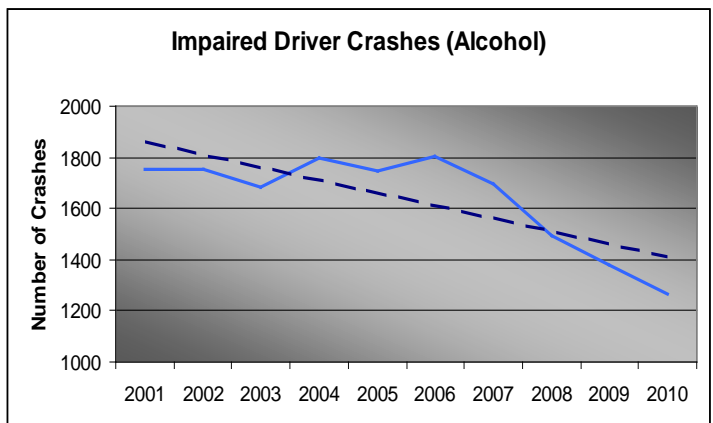
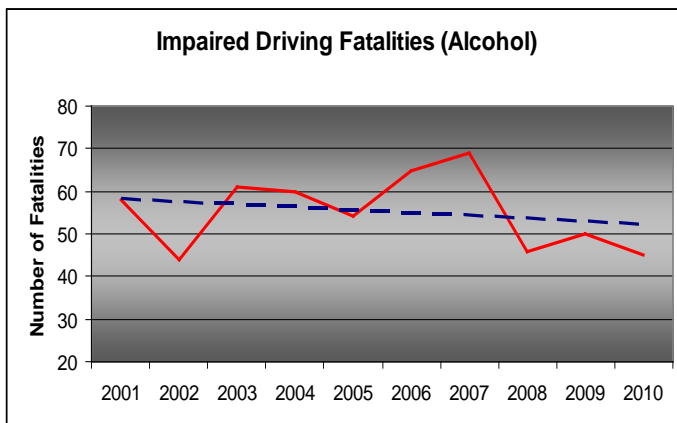
IMPAIRED DRIVING



OUR CHALLENGE

Maine's alcohol-related fatalities were 60% of the total during the mid-1970's to 1980 but improved to a level of around 20% in 2002/2003. Since then, the percent of alcohol-related fatalities has risen to about 30%. The recent fatality trend also reflects an overall increase.

In 2009, Maine had 50 alcohol-related fatal crashes and 44 of these fatal crashes had drivers with a Blood Alcohol Content (BAC) of .08 or higher. Maine is slightly below the FARS (Fatality Analysis Reporting System) national rate of 32% (2008). This strategic focus area will also include attention to drug-related issues.



OUR GOAL

- Reduce impaired driving related fatalities by 5% by 2014
- Reduce impaired driving related crashes by 5% by 2014



IMPAIRED DRIVING STRATEGIES

Assess whether legislative change to Maine's Motor Vehicle Statute should include an "illegal per se" law for drivers operating with drugs in their system, and permit administrative drivers' license suspensions for drivers who operate with drugs in their system.

- **Reasoning** – Following NHTSA's (National Highway Traffic Safety Administration) study (released 2009) which revealed that 16% of weekend nighttime drivers were operating with a drug in their system, coupled with increased use of pharmaceuticals, the legislative change is worth considering to combat the threat of drug-impaired drivers on Maine's roadways. Over 15 other states have already passed similar legislation.
- **Lead** – Coordinate with Bureau of Highway Safety (BHS) and local legislators.
- **Timing** – Can be proposed in next session.

Increase public awareness of drug impaired driving through media campaigns, press releases and signage. Permit a portion of future law enforcement impaired driving grants to be used to fund media materials.

- **Reasoning** – Public awareness may lead to a reduction of responsible persons driving while impaired by lawfully prescribed medications, and may increase the public's reporting of possible impaired drivers to law enforcement.
- **Lead** – Maine Department of Public Safety, MaineDOT, Maine Turnpike Authority, BHS, local law enforcement.
- **Timing** – Ongoing.

Continue law enforcement training in Advanced Roadside Impaired Driving Enforcement (ARIDE).

- **Reasoning** – Train law enforcement officers to better recognize signs and symptoms of alcohol and drug impairment.
- **Lead** – Maine Criminal Justice Academy
- **Timing** – Ongoing.



Additional Funding

Training software development through NHTSA for standardized online training.

- **Reasoning** – Officers who were trained in earlier, outdated SFST models need easy access to receive the most current training and ability to refresh their training on a regular basis. JPMA currently produces the online mandatory training for the Maine Criminal Justice Academy.
- **Lead** – NHTSA is developing software
- **Timing** – Anticipate availability within a year.

STRATEGIES CONT'D

Add a position of Traffic Safety Resource Prosecutor (TSRP), likely assigned to either Maine BHS or the Attorney General's Office

- **Reasoning** – Frequently, relatively new assistant district attorneys are assigned to prosecute impaired driving cases, and are contending with defense counsels, who often are specially trained to deal exclusively with impaired driving cases. Additionally, drug impaired driving cases and fatal motor vehicle crashes require additional specialized training. A state level TSRP, which most other states have, would provide that specialized resource to assist prosecutors prepare for trial, and even assist in prosecution of serious cases.



- **Lead:** Bureau of Highway Safety
- **Timing** – Dependant on funding

Increase ability of Maine Health and Environmental Testing Laboratory (HETL) to test for drugs.

- **Reasoning** – By statute, blood is required to be drawn for any fatal motor vehicle crash. Currently, Maine's HETL is unable to test blood for drugs other than alcohol. This presents a significant problem in cases of serious crashes due to impaired driving. The blood sample must be sent to an out of state lab for analysis. At trial, the chemist from the out of state lab must be brought to testify to the results. Maine's HETL would need to purchase additional equipment and develop standards for testing blood for drugs, and would need an additional chemist once those standards are developed.

- **Lead:** Bureau of Highway Safety (for funding) and Health and Environmental Testing Laboratory
- **Timing** – Dependant on funding.

Increase blood/breath sample collection ability in rural areas. Can be accomplished by purchasing Intoxilyzer 8000 portable breath testing instruments, training officers as phlebotomists for blood draws, contracting with local EMS personnel, or any combination thereof.

- **Reasoning** - Officers in rural areas often have difficulty in obtaining an adequate blood or breath sample in a timely manner
- **Lead:** Bureau of Highway Safety
- **Timing** – Dependant on funding.

It is possible that federal funding may become available to assist in these strategies, as federal goals and strategies shift to combat drug-impaired driving. Other financial resources may need to be considered to help fund these projects.

DISTRACTED DRIVING

OUR CHALLENGE

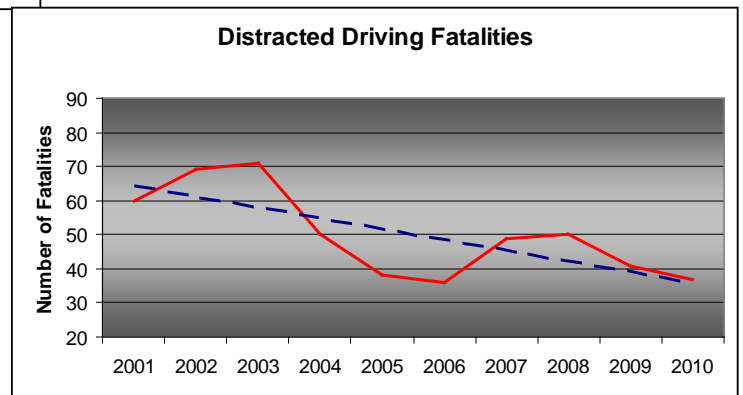
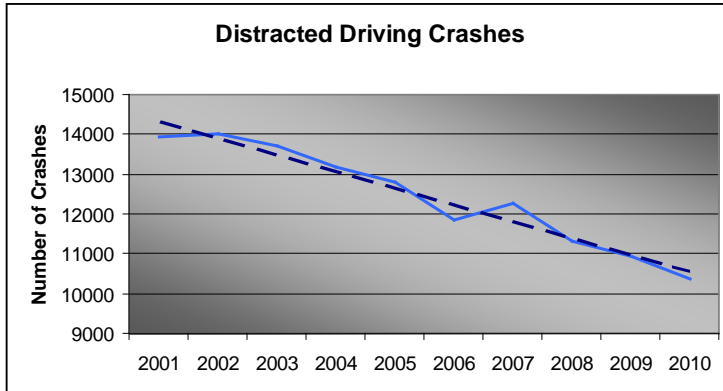
Distracted Driving has received heightened public and media attention recently with a general knowledge that driving does demand full time attention. As mobile technology evolves at a breakneck pace, more and more people rightly fear and recognize that distracted driving – texting, e-mails, phone calls and more – is a growing threat on the road.

- Driver inattention is a major contributor to highway crashes. The National Highway Traffic Safety Administration estimates that at least 25% of police-reported crashes involve some form of driver inattention.
- Recent AAA Foundation for Traffic Safety research found that young drivers (under 20 years of age) are the most likely to be involved in distraction-related crashes.
- Driver distraction is one form of inattention and is a factor in over half of these crashes.
- AAA Foundation for Traffic Safety explains distraction as when a driver “is delayed in the recognition of information needed to safely accomplish the driving task because some event, activity, object, or person within or outside the vehicle compels or induces the driver’s shifting attention away from the driving task.” The presence of a triggering event distinguishes a distracted driver from one who is simply inattentive or “lost in thought.”
- It is difficult to accurately collect this information at the crash scene since drivers won’t always volunteer what lead to the crash.
- As roads grow more congested and the demands on drivers increase, it seems likely that new in-vehicle technologies will add even more potential distractions. (AAA Foundation for Traffic Safety)



OUR GOAL

Reduce distracted driving-related fatalities 10% by 2014



DISTRACTED DRIVING STRATEGIES

Increase public awareness of the dangers of distracted driving. Unlike the social stigma surrounding drinking and driving, driving while texting, emailing or talking on the phone aren't perceived as blatant behaviors despite overwhelming scientific evidence of the serious crash risk these behaviors pose.

- **Reasoning:** There is a crucial disconnect between public perception of distracted driving and one's own personal behavior. Providing educational materials would aid in helping the public understand the true risks of their actions. A concerted effort should include all agencies/advocates providing a consistent message to all age groups.
- **Lead Agency:** Bureau of Highway Safety/AAA Northern New England
- **Timing:** Ongoing
-

Maine has enacted a Distracted Drivers law that became effective on September 12, 2009 that includes this definition: "Operation of a motor vehicle while distracted" means the operation of a motor vehicle by a person who, while operating the vehicle, is engaged in an activity:

- (1) That is not necessary to the operation of the vehicle;
- and
- (2) That actually impairs, or would reasonably be expected to impair, the ability of the person to safely operate the vehicle.



STRATEGIES CONT'D

Enrich Maine's current distracted driver law by encouraging policy-makers to support legislation that would prohibit texting while driving.

- **Reasoning:** A majority of Maine drivers – 94% – support laws against reading, typing or sending text messages or emails while driving, according to AAA Northern New England public affairs survey.
- **Lead Agency:** AAA Northern New England
- **Timing:** Ongoing

Support the enforcement community in their efforts to curb distracted driving.

- **Reasoning:** High visibility enforcement has been shown to change driver behavior, including programs such as Click It or Ticket. By adopting the "Put It Down" campaign and making available materials and funding to local and state law enforcement, it would follow that this campaign would also be successful in bringing attention to this problem.
- **Lead Agency:** Bureau of Highway Safety
- **Timing:** Ongoing



MATURE DRIVERS

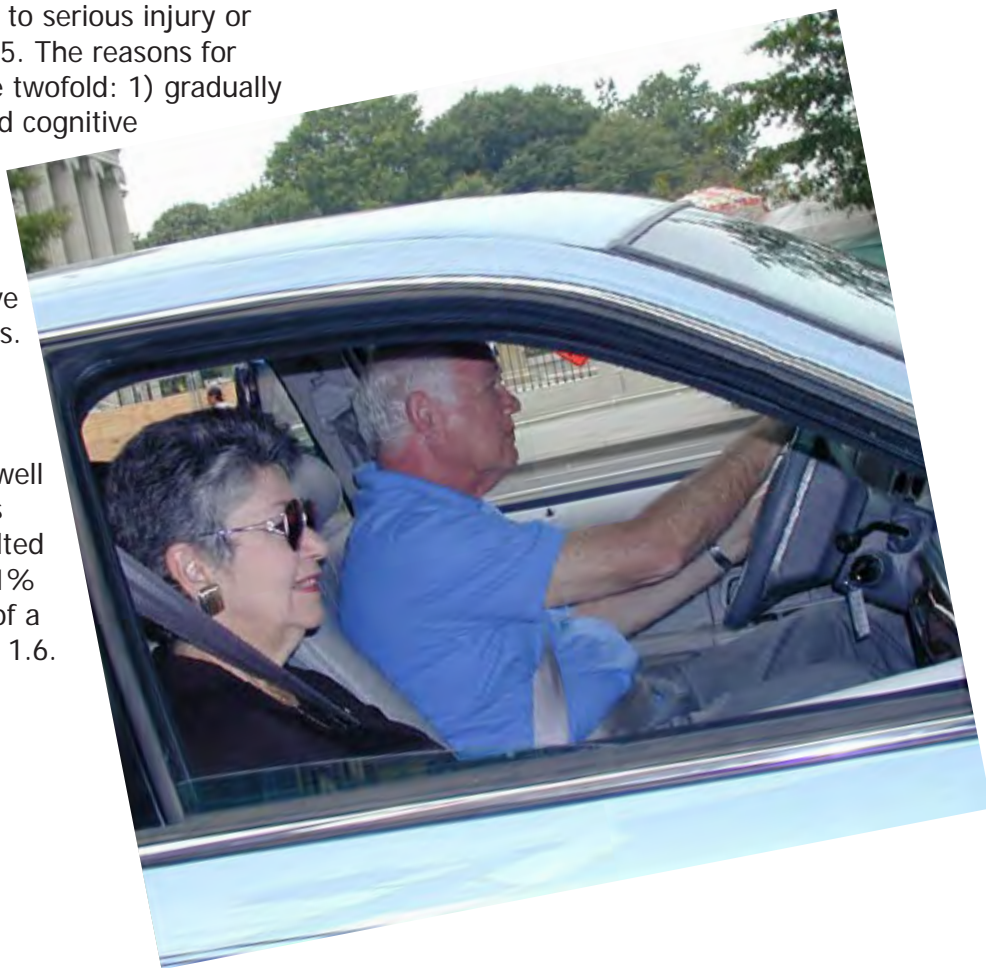
OUR CHALLENGE

Mature Drivers are defined as age 65 and older. Maine is the “oldest” state by median age (42); 4th oldest by percent (15%) of its population over 65- a proportion that is expected to rise to 26.3% by 2030, surpassed only by Florida; and the second-fastest aging state after Virginia. As we lead the nation in aging, policies we develop to support our aging population may show the way for other states.

Drivers over age 65 experience more crashes per mile driven than any age group except 16 year olds according to national and Maine studies. The crashes are 1.7 times more likely to lead to serious injury or death than for drivers ages 25-65. The reasons for higher crash and injury rates are twofold: 1) gradually diminishing physical, sensory and cognitive capabilities, often exacerbated by medications and specific conditions; and 2) increasing physical frailty, which renders motor vehicle crashes more grave for the elderly drivers themselves. While urban drivers have more crashes, rural crashes are more likely to be fatal. Seatbelt use doesn't protect older drivers as well as it does younger ones. Seniors over 65 in fatal crashes were belted 67% of the time compared to 41% for all others, for a relative risk of a fatality while using a restraint of 1.6.

Mature drivers are involved in an average of 4,700 crashes each year resulting in 41 fatalities. Leading crash characteristics are different than those for younger drivers. They include:

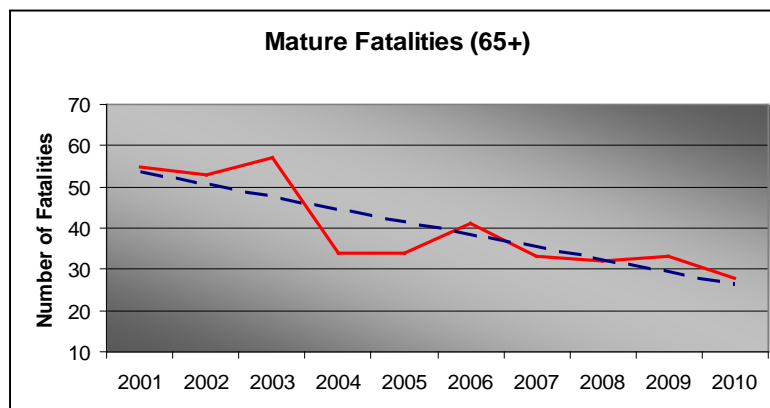
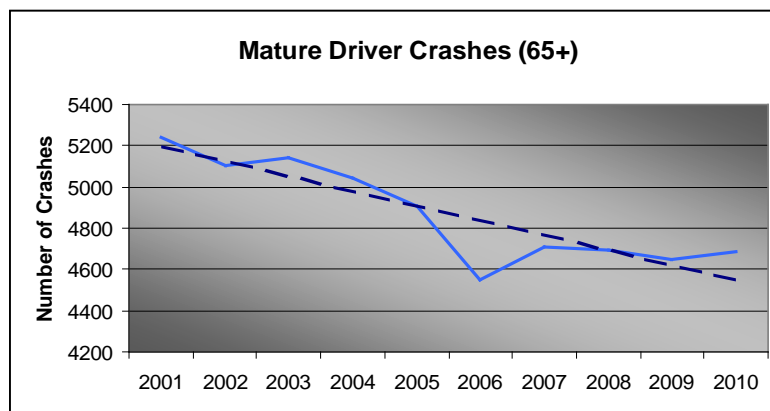
- Carelessness or inattentiveness
- Failure to keep in proper lane
- Failure to yield the right of way
- Failure to obey traffic signs, traffic control devices, or safety zone laws
- Drowsy, sleepy, asleep or fatigued



OUR GOAL

To prevent an increase in the number of crashes and fatalities involving mature drivers as the total population of mature drivers increases.

- Reduce mature driver fatalities by 10% by 2014
- Upgrade mature driver screening by 2013



MATURE DRIVER STRATEGIES

To address these issues in Maine, the Maine Senior Driver Coalition was formed in the spring of 2009. Starting with concerned Mainers from varied backgrounds and representing several interested groups of state and private organizations with a stake in public health and driver safety, the group has expanded over the past year and a half to include representatives from clinical geriatricians, social workers and occupational therapists, public health, the Maine Bureau of Motor Vehicles, AARP, the American Automobile Association, Independent Transportation Network-America, the Maine Chiefs of Police, the Maine Office of Elder Services, the Maine Bureau of Highway Safety, the Maine CDC Injury Prevention Program, the Maine Department of Transportation, a state legislator, and others.

The Maine Senior Drivers Coalition plan to conduct three interlinked, three-year trial methods to reduce mature crashes in high mature rate rural (Franklin County) and urban regions (Cumberland County) of the state. The focus is on adapting tools developed elsewhere for Maine's needs and requirements. The project will:

- Increase public knowledge, understanding, and acceptance of mature driver needs.
- Refine the elements of a system of assessment that can be entered in a variety of ways. An assessment needs to:
 1. Be effective in identifying individuals most at risk if they continue operating a motor vehicle.
 2. Improve access to transportation systems that ease the transition for all.
 3. Address the urgent need for safe transportation alternatives for those identified individuals who should no longer operate a motor vehicle.

Enhanced self-screening for improved safety that focuses on various outreach strategies and identifies effective approaches that engage the drivers and families most likely to be facing driving transitions. It uses a battery of tests available through the American Automobile Association's Roadwise Review.

- **Reasoning:** Self assessment can lead to self-imposed restrictions resulting in limited driving in undesirable conditions.
- **Lead:** AAA Northern New England
- **Timing:** 2011-2012

Bureau of Motor Vehicles Senior Driver Assessment Pilot (SDAP) focuses on identifying and addressing organizational, legal and budgetary issues related to adopting and adapting test batteries trialed in other states at the regional BMV offices in our two study locations in anticipation of developing a policy proposal for Maine.

- **Reasoning:** Current evaluation methods do not include cognitive skills testing which should be included as part of the evaluation process.
- **Lead:** Secretary of State, Bureau of Motor Vehicles
- **Timing:** 2011-2012

STRATEGIES CONT'D

The linking testing and transportation project will work in the same two regions of the state with current and prospective senior transit providers to build a system that offers priority access to existing services to newly transitioning senior drivers and builds support for and integration of senior transit systems.

- **Reasoning:** Alternative transportation will allow mature drivers the opportunity to continue their mobility after their driver's license has been retired.
- **Timing:** 2011-2012
- **Lead:** Uncertain at this time

Ongoing use of Maine Crash data as well as BMV license moving violation data, an evaluation of the combined projects will examine two year retro- and prospective differences in crash rates and other senior driver citations/restrictions in the study areas compared to non-intervention counties, as well as among all individual participants in the project by test scores.

Self screening and public education – physician education seminars for primary care to provide a high-level overview of their role in maintaining the independence and assessing capabilities to drive safely. AAA is continuing with promoting their self-screening tool "Roadwise Review." AAA has been holding various Senior forums and fairs around the state sponsored by the Area Agencies on Aging and presenting their "Keeping the Keys" program at these events. Additionally the coalition is exploring strategies for publicizing these 2 programs along with AARP's "We Need to Talk" program.

BMV is currently exploring the possibility of participating in an American Association of Motor Vehicle Administrators (AAMVA) pilot study using a cognitive screening tool programs called Safe Driving BASICS to address the testing battery strategy at license renewal.

As far as the third strategy for linking testing and transportation, the coalition will be inviting a speaker from the KV Council of Governments to discuss their planning for alternative senior transportation resources in the KV area to its meeting in September.

MOTORCYCLES

OUR CHALLENGE

Motorcycle/scooter crashes will be a trend to watch with fuel costs causing travelers to consider cheaper transportation modes. Riders are much more susceptible to serious crash injury. In 2009, crashes decreased and fatalities increased.

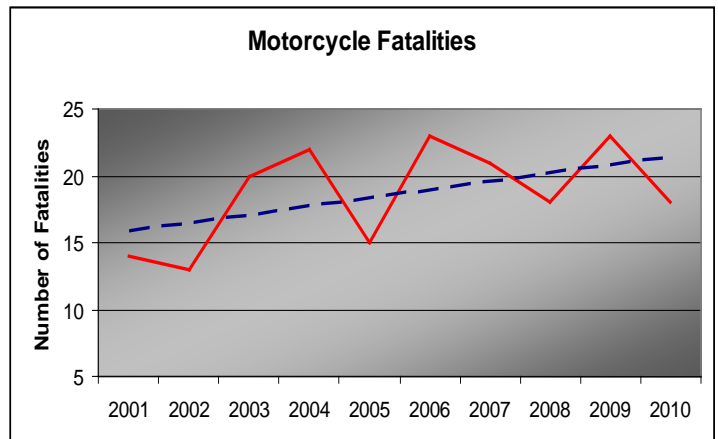
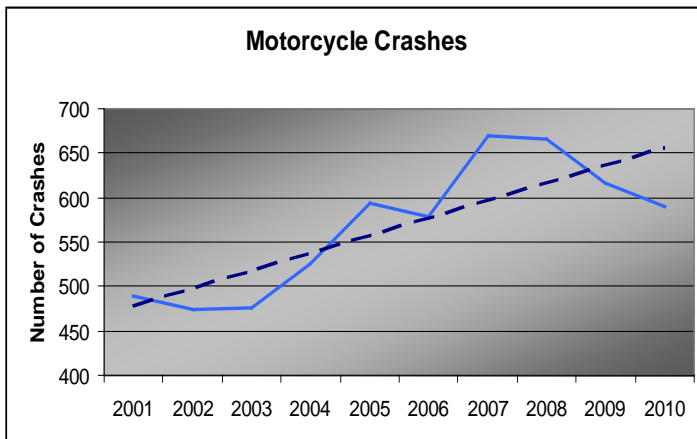
Ten year crash and fatality trends are increasing. Motorcycle registrations have also steadily increased during this period. Motorcycle crash aspects include:

- Helmets were not worn by about 2/3 of the riders killed.
- Leading age group of motorcycle operator fatalities is 26-54
- Eleven of the 24 fatal motorcycle crashes were single vehicle occurrences.
- There is an increase in motorcycle ownership in the 40 and above age group and there is an increase in motorcycle rider fatalities in that age group during the last 10 years.



OUR GOAL

- Reduce motorcycle crash fatalities (from 20.6 to 19.6) by 5% by 2014
- Increase motorcycle rider education opportunities for experienced riders.
- Increase law enforcement efforts.



Year	Fatalities	No Helmet	BAC .08+
2000	18	15	6
2001	14	5	3
2002	13	8	2
2003	20	13	5
2004	22	12	7
2005	15	9	6
2006	23	15	4
2007	21	15	5
2008	18	13	2
2009	24	18	7
TOTAL	188	123	47

MOTORCYCLE STRATEGIES

Increase participation in a novice rider hands-on motorcycle rider education course.

Enlist motorcycle dealerships, motorcycle groups, motorcycle rider education schools and other state agencies to promote the courses.

Garner support from the motorcycle rider education community and other parties interested in motorcycle safety.

- **Reasoning:** Hands on Rider Education imparts necessary skills in a controlled environment to develop the ability and confidence of novice riders. These skills can be life saving and ultimately contribute to a reduction in motorcycle crashes and fatalities
 - **Lead:** Bureau of Motor Vehicles
 - **Timing:** In the next 3 to 5 years depending on funding

Market existing experienced rider courses by:

Development of television commercials, radio advertisements, print advertisements and internet resources touting the benefits of experienced rider courses.

Engage motorcycle dealers to potentially offer discounts to absorb course fees with the purchase of a new or used motorcycle.

Create bumper stickers, car magnets, T-shirts and other miscellaneous items promoting experienced rider education.

Engage insurance companies to assist in the promotion of experienced rider courses through existing resources available to them including insurance rate discounts.

- **Reasoning:** Novice rider courses impart basic skills. Experienced rider courses expand on the basic skills and provide an opportunity for rider to become familiar with their personal motorcycle. These advanced skills provide further tools for motorcyclists to avoid crashes and/or fatalities.
- **Lead:** Bureau of Motor Vehicles, Bureau of Highway Safety
- **Timing:** In the next 3 to 5 years depending on funding



STRATEGIES CONT'D

Objective: Promote legal riding.

If summonsed for unlicensed riding, completion of a motorcycle rider education course would negate the charge, provided the course was completed within a prescribed time frame.

Link motorcycle registrations to unendorsed riders and send a friendly letter encouraging participation in a rider education course or prohibit registration by individual was not properly endorsed. Letter should contain penalties for operating without a license (class E crime, \$1000 fine, one year in jail).



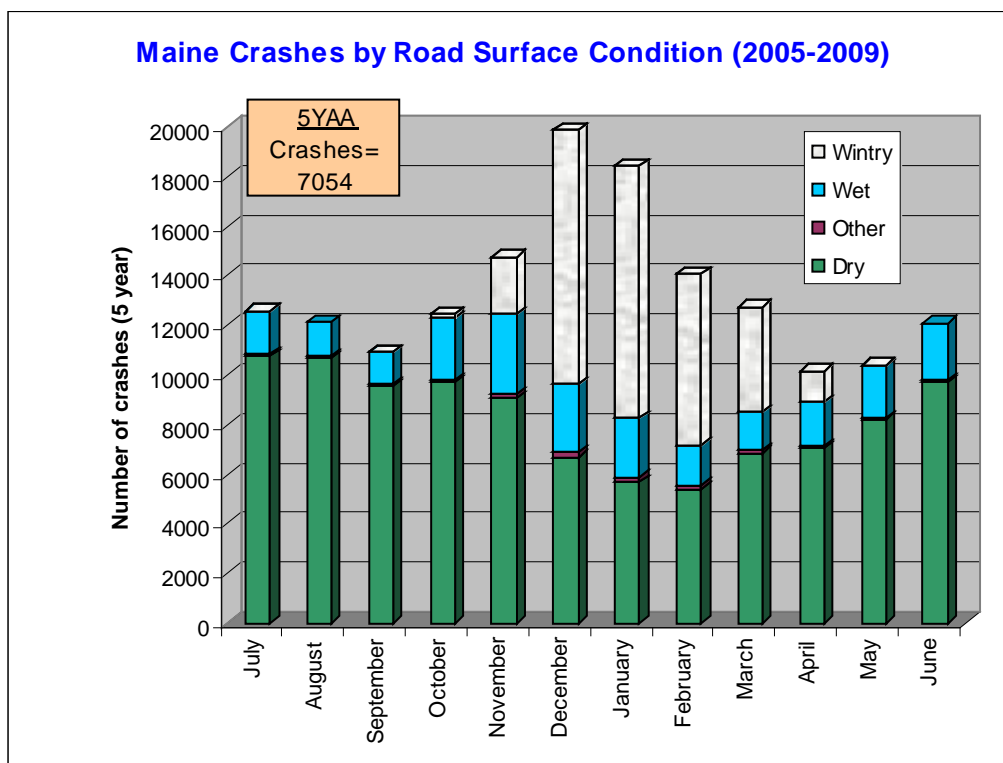
Promote the benefits of legal motorcycle riding.

- **Reasoning:** Unlicensed riders contribute greatly to crashes and fatalities. Encouraging licensing and rider education for alternative sentencing will provide a rider an opportunity to come into compliance and hopefully realize the value of being properly licensed.
- **Lead:** Law Enforcement Agencies
- **Timing:** In the next 3 to 5 years depending on funding

WINTER CRASHES

OUR CHALLENGE

Winter crashes account for over 7,000, or nearly 20%, of Maine's annual crash total. The months of January and February have the greatest amount of snowfall. It is December when crash activity is the highest due to wintry road surfaces, indicating that it takes drivers time to adjust to ice, snow and slush conditions. Run-off-the-road and head-on collisions on wintry roads double in proportion to those on dry roads indicating the degree of vehicle control issues present. Not surprisingly, police crash reports cite driver 'unsafe speed' three times as often when wintry road conditions exist.



OUR GOAL

- Reduce five year annual average winter surface conditions related fatalities by 10% by 2014.*
- Reduce five year annual average winter related surface conditions related crashes by 5% by 2014.*

*A five year annual average was selected in an attempt to compensate for the year to year variability in storm numbers, intensity, location and timing. Long term trends are a better indicator for measuring success in this area.



WINTER CRASH STRATEGIES

Enhance detection capabilities of roadway weather conditions.

- Use crash data to identify and analyze high crash locations where winter surface conditions play a significant role.
- Where appropriate, use technology such as Road Weather Information Systems and pavement sensors to alert maintenance responders of changes in surface conditions.
- Employ the use of mobile weather instruments, such as pavement temperature and humidity sensors on maintenance and patrol vehicles during periods when road conditions may deteriorate.
- **Reasoning:** Providing advance notice to maintenance crews as well as motorists about changing road conditions will allow drivers to adjust for these changes and will allow for crews to treat roadways sooner.
- **Lead:** MaineDOT, Maine Turnpike Authority
- **Timing:** Ongoing

Decrease or eliminate response times for maintenance crews when treating roadways (interstates and major arterials) during winter storms.

- Marry the opportunities presented by the increased use of roadway weather information systems with methods and protocols that allow for the rapid notification of maintenance crews of imminent deterioration of surface conditions.
- Where and when appropriate, increase the practice of pre-treating roadways with anti-icing materials prior to storms.
- **Reasoning:** Pre-treating roadways and decreasing the response time of maintenance crews shortens the duration of "winter surface conditions" that are typically encountered at the beginning of many winter storms. A decrease in the duration of these conditions results in a decreased opportunity for drivers to encounter these conditions.
- **Lead:** MaineDOT, Maine Turnpike Authority, Municipal highway departments.
- **Timing:** Ongoing

STRATEGIES CONT'D

Increase public awareness of the hazards of winter driving, and educate drivers on appropriate driving techniques to use under these conditions.

- Enhance and utilize existing “Winter Driving Tips” video commercial at strategic times (predicted winter storms) through media buys at television stations in selected markets.
- Market the same Winter Driving Tips messaging via appropriate websites and print media throughout the winter driving season.
- **Reasoning:** Statistics already suggest that drivers are most likely to be involved in winter-conditions-related crashes early in the winter, before they have adjusted their driving habits. This campaign reinforces the need to adjust driving practices before encountering inclement conditions.
- **Lead:** Maine Turnpike Authority
- **Timing:** Ongoing, specifically during the winter seasons and prior to predicted winter weather events.



INTERSECTION CRASHES

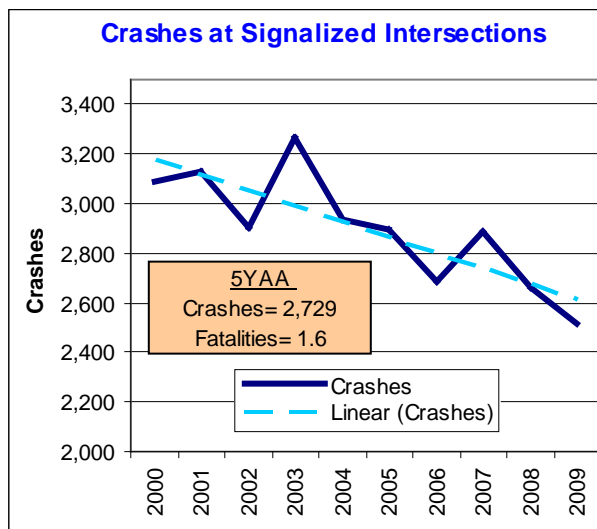
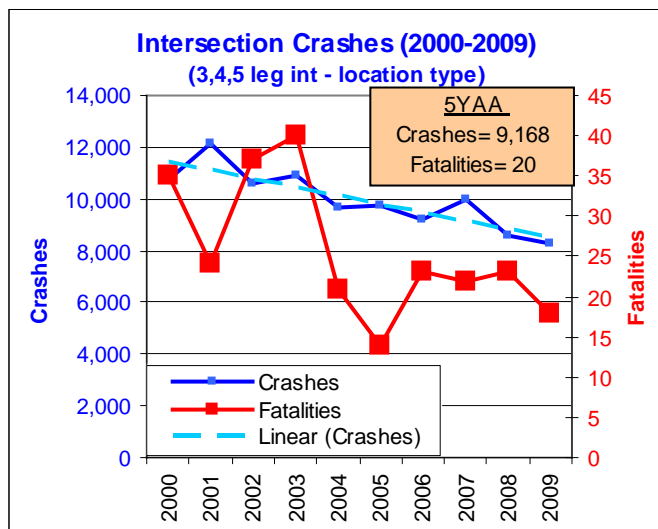
OUR CHALLENGE

Intersections are a common crash location. Drivers need to be observant and make proper decisions as well as follow the rules of the road.

Common crash types that occur annually at intersections include rear-end crashes (4,400) and intersection crashes (4,200). About 110 of these crashes at intersections involve bicyclists and 105 involve pedestrians.

Drivers had the following contributing factors reported in the most recent 5 year period:

- Driver inattention/distraction – 22,831
- Failure to yield right of way – 12,987
- Following too close – 7,177
- Illegal/unsafe speed – 4,279
- Disregard traffic control device – 3,312
- Improper turn – 1,947



OUR GOAL

Reduce intersection crashes by 10% by 2014



INTERSECTION CRASH STRATEGIES

Evaluate/Identify locations of most concern

Desktop Analysis – Review data (number of crashes, crash severity, Critical Rate Factor) to develop a list of High Crash Locations for review.

Solicit input from regions/municipalities.

Evaluate high pedestrian/bike crash activity.

Evaluate performance of past safety projects and review as necessary.

- **Reasoning:** To best determine the most deserving candidates for safety funds.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Develop solutions for reviewed locations

Crash diagrams, photos, traffic data, and other gathered information are used by a team of engineers and traffic professionals to develop a scope of work that will best correct the safety issues at every reviewed location.

Cost estimates are developed and applied to crash data to give a benefit/cost (B/C) score to each project.

Projects are funded based on B/C score and available funds.

- **Reasoning:** To determine the most effective and reasonable safety fixes for problem locations.
- **Lead:** MaineDOT
- **Timing:** Ongoing

STRATEGIES CONT'D

Alternative Solutions

Use roundabouts and other “outside the box” methods to correct problem intersections.

Evaluate lower-cost/simpler solutions where applicable.

- **Reasoning:** To find new, innovative, and cost-effective solutions to common problems.
- **Lead:** MaineDOT
- **Timing:** Ongoing

Enforcement

Work with law enforcement professionals to identify problem intersections.

Pursue law enforcement presence as a means to safer intersections where possible.

- **Reasoning:** To make intersections safer through law enforcement.
- **Lead:** Local, state, and county law enforcement
- **Timing:** Ongoing

Note: Intersections are a common location where distracted driving occurs. Need to integrate the work being done with the distracted driving group to address distracted driver issues as they relate to intersections

LARGE TRUCKS

OUR CHALLENGE

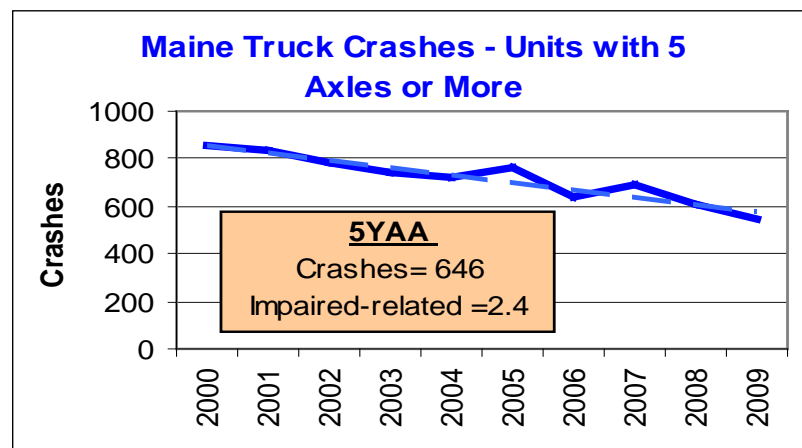
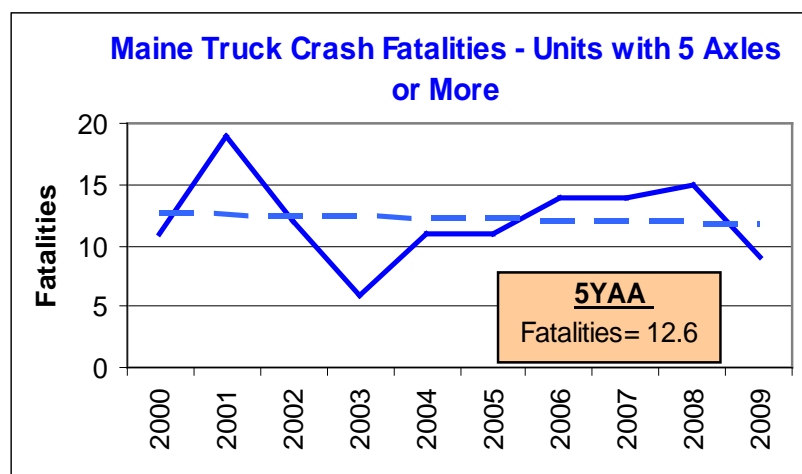
Large trucks are a concern due to the size and load differential between 4, 5 and 6-axle larger truck units and passenger vehicles. There is additional focus on fatigue related to long haul operations. Attention is also being given to increasing weight limits on Maine interstate roads that is designed to reduce heavy truck traffic on local roads.

Overall, truck crash and fatality rates have improved over the years, but the fatality rate has decreased at a slow rate.



OUR GOAL

- Reduce large truck crash fatalities by 10% by 2014.
- Reduce large truck crashes on secondary roads by 10% by 2014.



LARGE TRUCK STRATEGIES

Strongly support Maine's efforts to make the interstate truck weight pilot project permanent. This will improve safety by reducing the number of interactions with other vehicles, pedestrians, school crossings, intersections, etc. by having these trucks travel on the roads that are best suited for their safety and the safety of the motoring public.

- **Reasoning:** Reducing vehicle and other interactions improves safety.
- **Lead Agency:** Industry and government.
- **Timing:** Ongoing.

Pursue targeted enforcement efforts that will lead to educational opportunities. Every time enforcement interacts with commercial motor vehicle operators, there is an opportunity to educate these drivers on the importance of seat belt use/compliance, distracted driving, aggressive driving, driver fatigue and overall driver professionalism. It has been suggested to be held during National Truck Driver Appreciation Week.

- **Reasoning:** Education through enforcement can lead to improved safety behavior.
- **Lead Agency:** Maine State Police.
- **Timing:** Ongoing

Effectively communicate the importance of safety regulatory compliance as a means to increase safety awareness. The Bureau of Motor Vehicles has mailing information for all Maine carriers with a DOT number, which can be used to send out a reminder of issues they need to consider such as drug and alcohol requirements, seat belt use, log books, medical cards, Driver Vehicle Inspection Reports (DVIRs), Comprehensive Safety Analysis and the importance of pre- and post-trip inspections.

- **Reasoning:** Regulatory compliance promotes safety awareness.
- **Timing:** Letter can be developed and mailed at any time.
- **Lead:** Bureau of Motor Vehicles.



PEDESTRIANS/BICYCLES

OUR CHALLENGE

Pedestrians and bicyclists are vulnerable users of the transportation system. For many people, walking is the only option. Children, teenagers, the elderly, people with disabilities, and those with financial limitations often have no other way to get to a destination. Providing a safe place to walk and bike is essential for these and most other users of the transportation system. In Maine, a pedestrian is hit by a motor vehicle on average once a day. More than ninety percent of these pedestrian crashes involve injury or death to the pedestrian.

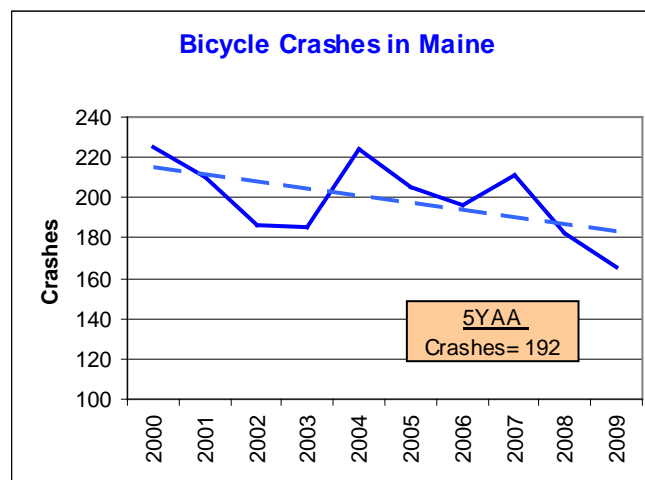
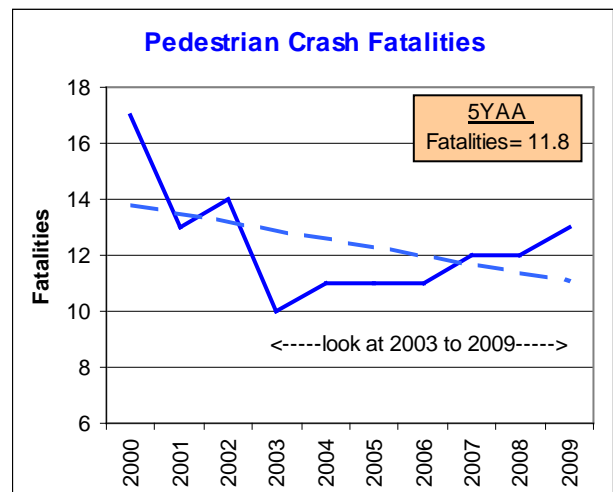
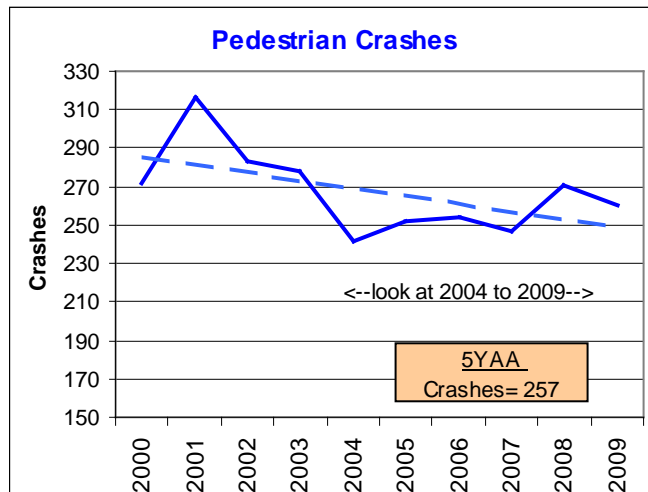
It is critical for bicycle and pedestrian safety that the road system includes sidewalks, shoulders, and safe and visible crossings, where needed and feasible. It is also critical that the public is educated regarding the need for pedestrians and bicyclists to dress brightly, be aware of surroundings and other safe behaviors. It is critical that motor vehicle drivers are educated on the importance avoiding pedestrians and bicyclists and giving them the time they need to cross the road safely. Both the bicyclist and pedestrian, as well as the motorist, need to be taking the right precautions to assure the safety of all road users.

Contrary to recent trends for a reduction in crashes and fatalities on the transportation system, fatalities for pedestrians have been increasing in Maine the last few years.



OUR GOAL

- Reduce pedestrian-related crashes and fatalities on the transportation system by 10% by 2014
- Increase pedestrian safety awareness
- Reduce bicycle-related crashes and fatalities on the transportation system by 10% by 2014
- Increase bicycle safety awareness



PEDESTRIAN STRATEGIES

Ensure pedestrian improvements, including sidewalks and crossing improvements, are made when warranted to improve pedestrian safety on the transportation system

- **Reasoning:** Engineering solutions are vital to improving pedestrian safety and mobility.
- **Lead Agency:** MaineDOT and local municipalities.
- **Timing:** Ongoing

Educate municipalities, planners and advocates on the policies, processes, and funding opportunities available to improve conditions for pedestrians in their local communities through road improvements, site visits, educational programming, presentations and media campaigns.

- **Reasoning:** Many pedestrian improvements are locally driven, and education helps enable improved community environments.
- **Lead Agency:** MaineDOT and local municipalities.
- **Timing:** Ongoing

Maintain a web page that provides safety information and the tools and resources available for communities to identify deficiencies in the pedestrian network and how to make improvements.

- **Reasoning:** Web resources can provide viable and efficient information.
- **Lead Agency:** MaineDOT.
- **Timing:** Ongoing

Continue and expand state agency coordination regarding planning processes, policy implementation, outreach efforts and programming to ensure that relevant state agencies are working towards well-planned communities with safe pedestrian infrastructure.

Foster collaboration and partnerships-including between state and federal agencies, the private sector, health, safety, and planning professionals - to improve coordination and partnerships with the myriad of groups working on improving conditions for walking.

- **Reasoning:** Coordination is essential to improving pedestrian safety by ensuring all agencies and groups are coordinating limited resources and efforts.
- **Lead Agency:** MaineDOT
- **Timing:** Ongoing

Improve state and local policies and ordinances to ensure that pedestrian connections are made whenever feasible as part of all road improvement projects, developments, site plan approvals, and traffic and environmental mitigation efforts.

- **Reasoning:** Policies, ordinances, etc. are crucial to ensure pedestrian improvements are made at the time of designing and constructing a new building or road where warranted.
- **Lead Agency:** MaineDOT and local municipalities
- **Timing:** Ongoing

PEDESTRIAN STRATEGIES CONT'D

Develop a pedestrian safety signage program to install crosswalk and other safety related signage in communities and on state roads.

- **Reasoning:** Signage has been shown to be important in raising awareness of pedestrian environments, reducing speeds and improving safety
- **Lead Agency:** MaineDOT
- **Timing:** 2012-2013

Continue safety awareness campaigns including Share the Road campaigns for pedestrians, Pedestrian Safety Education programming in schools, law enforcement training, and Safe Routes to School travel plans and encouragement programs.

- **Reasoning:** Education, enforcement, and encouragement efforts have been shown to improve safety behavior.
- **Lead Agency:** MaineDOT and NHTSA
- **Timing:** Ongoing



BICYCLE STRATEGIES

Coordinate bicycle improvements including paved shoulders, signage and bike lanes. Increase bicycle lane creation efforts to create defined bike lanes in urban areas to improve bicycle safety and encourage more of the public to feel comfortable biking.

- **Reasoning:** Implementation of bicycle safety improvements are vital to improving bicyclist safety and mobility.
- **Lead Agency:** MaineDOT and local municipalities.
- **Timing:** Ongoing

Educate municipalities, planners and advocates on the policies, processes, and opportunities available to improve conditions for bicyclists in their local communities through road improvements, site visits, educational programming, presentations and safety media campaigns.

- **Reasoning:** Many bicycle improvements are locally driven, and education helps enable improved safe bicycling environments.
- **Lead Agency:** MaineDOT and local municipalities.
- **Timing:** Ongoing

Continue safety awareness campaigns including Share the Road campaigns for bicyclists, bicycle safety education programming in schools, law enforcement training, bicycle commuter programs, and Safe Routes to School travel plans and encouragement programs.

- **Reasoning:** Education, enforcement, and encouragement efforts have been shown to improve safety behavior.
- **Lead Agency:** MaineDOT and NHTSA
- **Timing:** Ongoing



BICYCLE STRATEGIES CONT'D

Continue and expand state agency coordination regarding planning processes, policy implementation, outreach efforts and programming to ensure that relevant state agencies are working towards well-planned communities with safe bicycle infrastructure. Foster collaboration and partnerships-including between state and federal agencies, the private sector, health, safety, and planning professionals - to improve coordination and partnerships with the myriad of groups working on improving conditions for biking.

- **Reasoning:** Coordination is essential to improving bicyclist safety by ensuring all agencies and groups are coordinating limited resources and efforts.
- **Lead Agency:** MaineDOT
- **Timing:** Ongoing



Maintain a web page that provides safety information and the tools and resources available for communities to identify deficiencies in the bicycling network and how to make improvements.

- **Reasoning:** Web resources can provide viable and efficient information.
- **Lead Agency:** MaineDOT.
- **Timing:** Ongoing

Improve state and local policies and ordinances to ensure that bicycle connections are made whenever feasible as part of all road improvement projects, developments, site plan approvals, and traffic and environmental mitigation efforts.

- **Reasoning:** Policies, ordinances, etc. are crucial to ensure bicycle related improvements are made at the time of designing and constructing a new building or road where warranted.
- **Lead Agency:** MaineDOT and local municipalities
- **Timing:** Ongoing

LARGE ANIMALS

OUR CHALLENGE

Maine is known for its terrific scenery and the accompanying wildlife – moose, deer, turkeys and other creatures may find their way onto any road, anywhere, and anytime. Moose and deer have much higher crash activity from dusk to dawn. Peak season for when these animals are most likely on the road is different as shown in the chart below. Overall crash activity has been decreasing. Maine does have a multi-agency task force to address related safety issues.

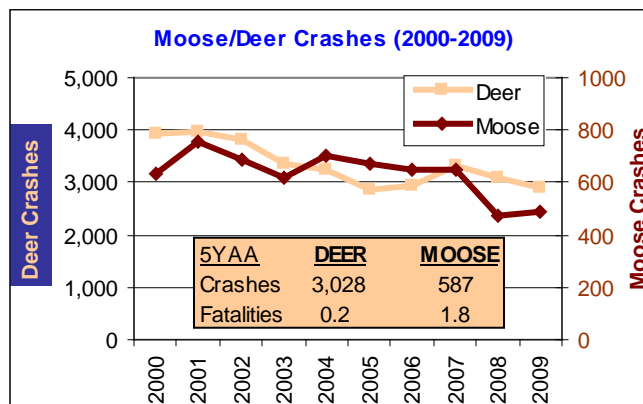
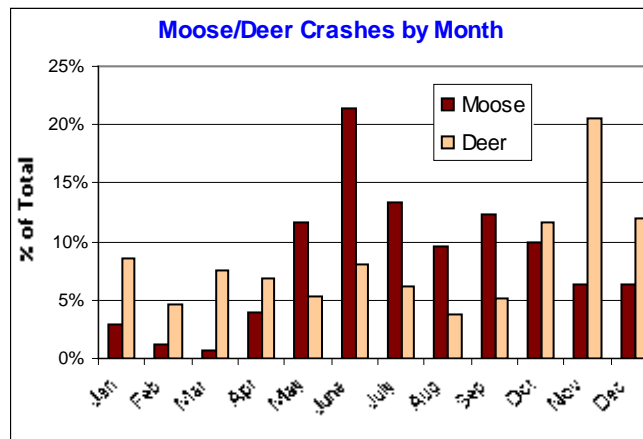
Moose do not represent the most frequent Maine animal crash type, but they are the highlighted species due to their sheer size. Impact with these animals can be devastating, with countless stories about these tall, heavy animals entering the passenger compartment upon impact causing serious injury and death.

Deer crashes are more frequent and although the animal is smaller, injuries and even fatalities do sometimes result.



OUR GOAL

- Reduce large animal crashes by 10% by 2014



MaineDOT works with the Maine Department of Inland Fisheries and Wildlife (MDIFW) and other agencies on road and wildlife management actions to update strategic activities.

LARGE ANIMAL STRATEGIES

Identify high crash locations.

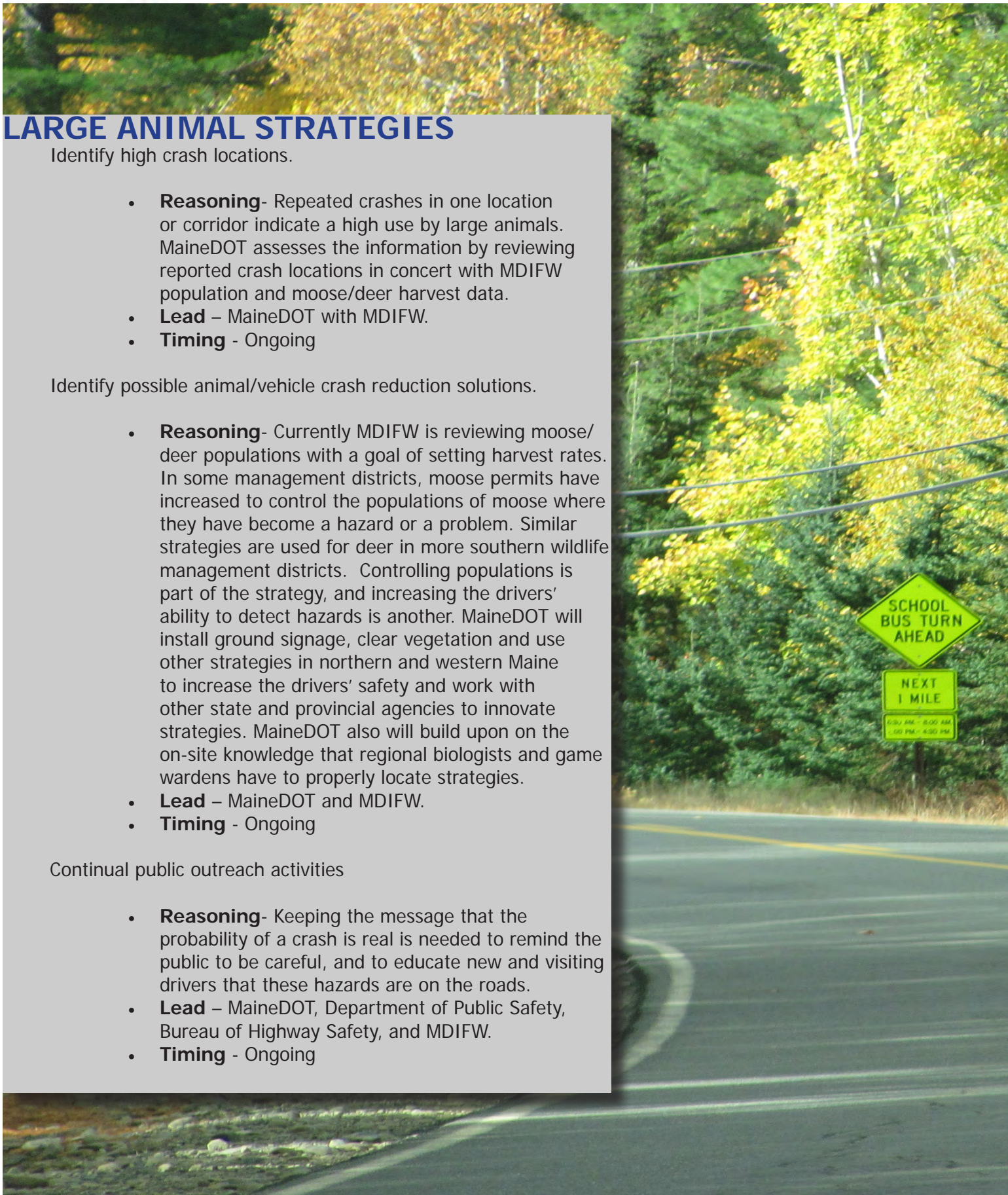
- **Reasoning-** Repeated crashes in one location or corridor indicate a high use by large animals. MaineDOT assesses the information by reviewing reported crash locations in concert with MDIFW population and moose/deer harvest data.
- **Lead** – MaineDOT with MDIFW.
- **Timing** - Ongoing

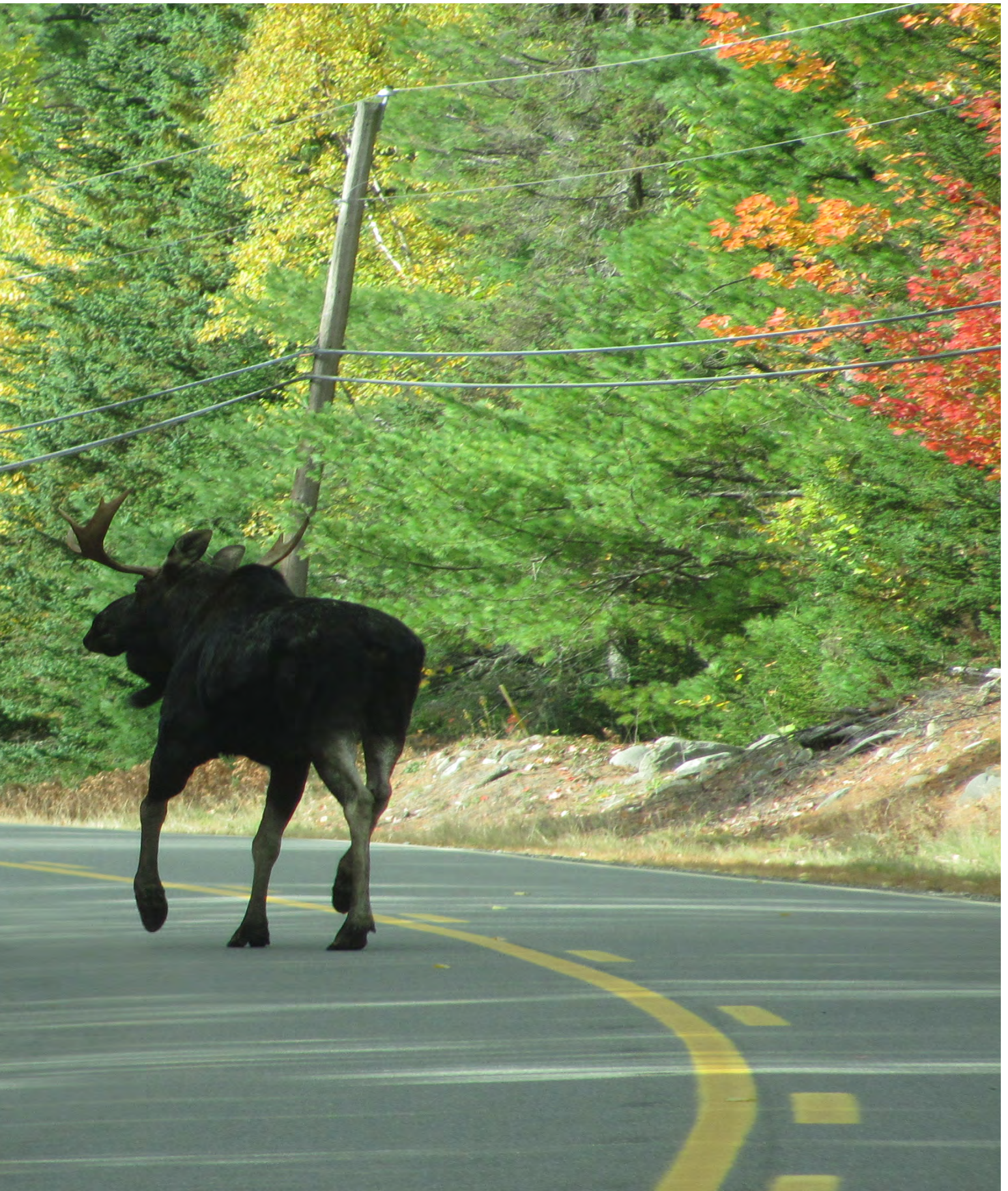
Identify possible animal/vehicle crash reduction solutions.

- **Reasoning-** Currently MDIFW is reviewing moose/deer populations with a goal of setting harvest rates. In some management districts, moose permits have increased to control the populations of moose where they have become a hazard or a problem. Similar strategies are used for deer in more southern wildlife management districts. Controlling populations is part of the strategy, and increasing the drivers' ability to detect hazards is another. MaineDOT will install ground signage, clear vegetation and use other strategies in northern and western Maine to increase the drivers' safety and work with other state and provincial agencies to innovate strategies. MaineDOT also will build upon on the on-site knowledge that regional biologists and game wardens have to properly locate strategies.
- **Lead** – MaineDOT and MDIFW.
- **Timing** - Ongoing

Continual public outreach activities

- **Reasoning-** Keeping the message that the probability of a crash is real is needed to remind the public to be careful, and to educate new and visiting drivers that these hazards are on the roads.
- **Lead** – MaineDOT, Department of Public Safety, Bureau of Highway Safety, and MDIFW.
- **Timing** - Ongoing





OPERATING AFTER SUSPENSION(OAS)

OUR CHALLENGE

Suspended drivers are still taking to the road, despite demonstrating that they cannot drive within safe criteria. Suspensions can also be initiated due to other violations such as failure to pay child support. This diversity in suspension causes makes it difficult to link the suspension types to crash outcomes, but regardless, the number of Maine license suspensions and the crashes and fatalities are significant. OAS fatality percents compared with crash percents indicate that crashes involving an OAS driver have higher severity than average.

Suspensions are often initiated due to a history of unsafe driving practices. Young drivers are more susceptible to license suspension due to provisions in the state's graduated driver's license.



OUR GOAL

- Reduce OAS fatalities by 15% by 2014.
- Increase public awareness of the dangers caused by suspended drivers.
- Improve crash reporting to link suspension types to crash.
- Improve the process of notifying drivers when their license is under suspension.
- Increase consistent prosecution for drivers found to be operating after suspension.

Crashes Involving Driver with Suspended Licenses						
Year	All Maine Crashes	Suspended Crashes	% of Susp. Crashes	All Maine Fatalities	Suspended Fatalities	% of Suspended Fatalities
2003	35046	870	2.5%	204	9	4.4%
2004	34957	949	2.7%	192	13	6.8%
2005	34975	785	2.2%	169	13	7.7%
2006	32023	763	2.4%	188	13	6.9%
2007	33144	884	2.7%	183	15	8.2%
2008	31704	655	2.1%	155	4	2.6%
2009	28937	690	2.4%	159	14	8.8%
2010	27863	641	2.3%	161	7	4.3%
2011	27024	652	2.4%	136	10	7.4%
	5YAA	704.4	2.4%		10	6.3%

OPERATING AFTER SUSPENSION STRATEGIES

Specified Patrol – Coordinate with state, local and county law enforcement agencies to encourage targeting of high risk suspects and repeat offenders. They should identify residences and locations of employment of offenders within their jurisdiction and subjects working within their jurisdiction that are suspended or operating without a license. We can then establish enforcement details and target these offenders during their commute.

- **Reasoning:** To develop a coordinated enforcement effort to remove suspended drivers from our road ways prior to their causing motor vehicle crashes.
- **Lead Agency:** State/local/county law enforcement agencies, BHS funding support
- **Timing:** Immediately

OAS Roadblocks – Encourage state, local and county law enforcement agencies to conduct roadblocks designed to apprehend suspended or unlicensed operators.

- **Reasoning:** This is an enforcement effort that will work not only to remove suspended drivers from our road ways but will also act as a deterrent to prevent suspended driver from operating on our road ways.
- **Lead Agency:** State/Local/County law enforcement agencies, BHS funding support
- **Timing:** Ongoing with a focus during summer time months

Develop a one page informational summary about operating after suspension and its potential safety consequences. This would be provided to local district attorneys and others to educate them on this topic.

- **Reasoning:** Provide information to educate readers about the significant risk that OAS drivers present on the road.
- **Lead Agency:** York PD
- **Timing:** 6/30/12

Court Patrol – Work with state, local and county law enforcement agencies to establish enforcement details at the courthouses within their jurisdiction to apprehend suspended or unlicensed drivers as they travel to and from their court dates.

- **Reasoning:** To focus enforcement efforts on repeat violators.
- **Lead Agency:** State/local/county law enforcement agencies
- **Timing:** Immediately



STRATEGIES CONT'D

Evaluate through crash data the reasons an operator that is involved in a crash was suspended. This information will allow us to better understand what types of suspended drivers are involved in these crashes.

- **Reasoning:** To develop a better understanding of what types of suspended drivers are causing our serious motor vehicle crashes. With a better understanding of the threats posed by suspended drivers, it will increase effective prosecution of the offenders.
- **Lead Agency:** Maine State Police Traffic Division, Bureau of Motor Vehicles
- **Timing:** Ongoing



Evaluate legislation that could better focus on suspended drivers who are causing serious crashes. Currently the privilege for someone to operate a motor vehicle can be suspended for a variety of reasons. As a result, our court system is overwhelmed and is not vigorously prosecuting operating after suspension cases. Legislation could focus on imposing stricter penalties for operators who are suspended for aggressive and dangerous driving practices.

- **Reasoning:** Currently, license suspensions occur for numerous reasons. It is our goal to identify the type of suspended driver who is causing these very serious crashes. It is our goal to work with legislators to ensure who the drivers that continually drive suspended and the ones that are likely to cause these serious crashes are held accountable with stiff penalties for their violations.
- **Lead Agency:** Department of Public Safety, Bureau of Motor Vehicles, Secretary of State
- **Timing:** Coordination between law enforcement, Bureau of Motor Vehicles, Secretary of State, State Legislature.

Enhance prosecution of operators who are suspended for aggressive and dangerous driving practices. Work with the district attorney offices and the courts to focus prosecution efforts on suspended drivers who are causing our serious personal injury and fatal motor vehicle crashes.

- **Reasoning:** It is imperative that offenders who continually drive with suspended licenses are held accountable in the court system.
- **Lead Agency:** Department of Public Safety, district attorneys, court
- **Timing:** Ongoing

EMERGENCY MEDICAL SERVICES

OUR CHALLENGE

Maine has nearly 6,000 individuals who are associated with the 285 EMS services that respond to emergency medical calls and inter-facility transfers. In 2010, Maine EMS providers responded to nearly 250,000 calls. 164,000 of these were emergency (9-1-1) calls, including 14,000 car crashes. Timely notification to EMS activates a system of care that includes emergency medical dispatchers, pre-hospital providers, and hospital resources. Maine has both a statewide trauma system that involves every hospital and statewide EMS treatment protocols, which help to provide quality care and the most appropriate destination for trauma patients.

Based upon historical data, Maine ambulances experience an average of 60 crashes a year. Further data study needs to be done in order to evaluate these data and develop an appropriate plan. Workers experience about 12.7 fatalities per 100,000 workers. This is about the same as Police Departments (PD) and Fire Departments (FD) – and 250% higher than average workers. Transportation risks are 500% higher than average. In terms of work related injuries, EMS is at 34.6/100, which is higher than FD & PD and 7 times higher than the average worker. For air medical crew, there have been 113 deaths per 100,000 employees, which is



OUR GOAL

To establish a system that connects hospital medical systems with the MaineDOT crash data system.



EMERGENCY MEDICAL SERVICES STRATEGIES

Treatment Protocols – Maine has statewide treatment protocols that are updated approximately every 3 years. The update for 2011 reflects changes made by the American Heart Association for cardiovascular care; identification and treatment of sepsis patients; modification of the scope of practice regarding airway management; and others.

- Lead Agency – Maine EMS
- Timing – Training will commence in September and the revised protocols will take effect December 1, 2011.

Data – Maine has had a mandatory EMS data system since 1982 and converted to an electronic system beginning in 2006 and completed in 2009. While the earlier paper-based system was done by an outside contractor, the e-system is managed within the EMS bureau. Challenges with the conversion have ranged from ongoing training and basic technical support needs to linkage with other data systems and research. Although Maine EMS does not currently have the ability to objectively assess the quality of the data, empirically there appears to be issues with accuracy, completeness, and timely submissions.

Regarding linkage with other data sources, Maine EMS drafted legislation that was passed in 2011 that will allow MEMS to provide otherwise confidential data to agencies such as Maine CDC, the Office of the Chief Medical Examiner, and for approved research projects. EMS is continuing to work with the Maine CODES project for opportunities to provide data.

Regarding data quality assessment, EMS will be working with BHS to identify resources for assessing both EMS and BHS data as recommended in a recent Traffic Records Assessment. EMS is also developing standardized 'report cards' that will be sent to each provider summarizing their performance in key areas and compare their results with other providers within the EMS region and in the state.

- Lead – Maine EMS
- Timing – Ongoing

Quality Improvement – Maine EMS is working on a statewide QI plan that will provide a handbook for services to use. This plan will include sections on medical control, data, QI, and education (among others).

- Lead – Maine EMS
- Timing – Fall 2011

Education – Maine EMS has adopted the national Education Standards for three license levels: Emergency Medical Responder (First Responder), Emergency Medical Technician, and Paramedic. The remaining license level, Advanced Emergency Medical Technician is very similar to what we now refer to as an EMT-Intermediate. It is anticipated that Maine will adopt the AEMT level for education, but maintain the title of EMT-Intermediate to minimize confusion.

- Lead – Maine EMS
- Timing – Spring 2012

STRATEGIES CONT'D

Promoting a Culture of Safety - this remains a significant challenge and is one where we are hoping to benefit from the expertise of other safety stakeholders involved in the SHSP.

The problems of EMS safety are well documented (Annals of Emergency Medicine, Pre-hospital and Disaster Medicine, etc.) and have been discussed nationally for many years. In spite of these discussions, the rate of job related injuries and crashes remains high.

Maine has required basic ambulance vehicle operator training for several years and continues efforts to educate providers about the importance of safe operations. Some services have installed vehicle telematics that provide data on vehicle location and some vehicle operation data such as speed, braking, sudden turns, etc. However, the overwhelming majority of services are skeptical about the benefits to such a monitoring system. Vehicle design has made only modest improvements in providing a safe environment for patients and providers during transport. This continues to be an area of considerable attention around the country because of both the paucity of data and the potential added expenses for vehicles. So while we struggle with vehicle design and operating issues, there are some areas where we are able to focus: Emergency Medical Dispatch (EMD) – Maine has a statewide EMD requirement and one of the goals of EMD is to decrease the frequency of lights and sirens (“code 3”) responses. An essential step in implementing response codes is quality assurance within the dispatch centers. In June, the Board of EMS adopted mandatory QA reporting requirements and the EMS office is working with services who are interested in developing response codes. Efforts to expand the use of response codes will be discussed and developed based upon lessons learned from these initial pilot services. Transporting Children Safely in Ambulances – with funding assistance from BHS, Maine EMS has conducted several train-the-trainer sessions to teach EMS providers about the proper way to secure children in an ambulance. This program is now part of many initial training programs. A goal is to have it become part of all initial training programs – timeline TBD. EMS PIER – Public Information, Education, and Relations has been an area of limited involvement with EMS services – and while some have done impressive outreach programs for cardiac care, playground safety, etc., the majority of services are unsure how to go about implementing such a program. In response, the contract that MEMS has with the regional EMS offices includes improving PIER during the coming fiscal year. TAC – TAT – The Trauma Advisory Committee offers Technical Assistance Team visits to hospitals upon request. TAT visits are offered to all non-trauma center hospitals with a primary focus being hospitals categorized as Critical Access Hospitals; the smallest and most rural in the state. This resource is funded by a grant from the Maine Office of Rural Health, Hospital FLEX grant program.

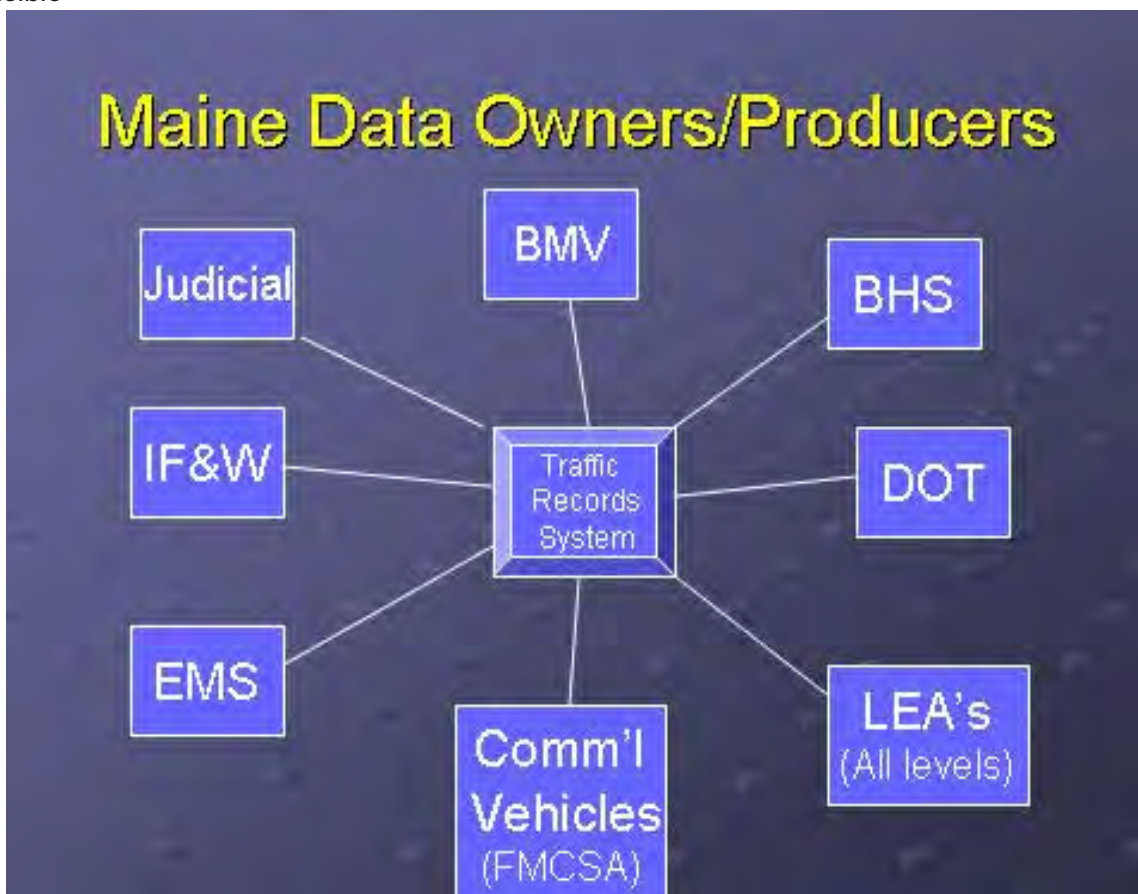
- Lead: Maine EMS
- Timing: Ongoing

TRAFFIC RECORDS

OUR CHALLENGE



Maine's Strategic Highway Safety Plan is data driven. Maine has enjoyed having very good traffic records data systems. This quality data has enabled us to define the what and why's of safety needs. Maine has published crash results in key performance areas during recent years. Despite having well regarded traffic records, it is important that we continuously evaluate how to more effectively and efficiently gather, evaluate and report out on crash results, be able to evaluate other safety aspects. A good understanding of the safety issues that data analysis provides will help lead to the best possible strategies to **improve safety and save lives** while using the most cost effective means possible



OUR GOAL

Enhance Maine's Traffic Records capabilities

TRAFFIC RECORDS STRATEGIES

Future areas of attention for the TRCC are:

- Electronic Collection of EMS Run Report Data
- Online Registration Renewal
- E-Citation
- Maine CODES
- Public Access Reports – Traffic

Maine does have a Traffic Records Coordinating Committee that has multi-agency representation, meets on a quarterly basis and identifies areas of future data system enhancements. The types of records that are evaluated in this process are:

- Crash Data System
- Citation and Adjudication
- Injury Surveillance System
- Vehicle Data System
- Driver Data System
- Roadway Data System

Each one of these system is evaluated in these performance areas

- Timeliness
- Accuracy
- Completeness
- Uniformity
- Integration
- Accessibility

During 2011, Maine updated its crash reporting system to bring it into closer alignment with the most recent existing Model Minimum Uniform Crash Criteria Guideline (MMUCC). MMUCC is a minimum, standardized data set for describing motor vehicle crashes and the vehicles, persons and environment involved. The Guideline is designed to generate the information necessary to improve highway safety within each state and nationally.

APPENDIX

Mature Drivers (Supplemental information):

Motor vehicle crashes are the leading cause of injury deaths among 65-74 year olds. In Maine, motor vehicle crashes were the leading cause of injury death to individuals ages 55-74 (2002-2006), and the second leading cause of injury death to persons ages 75-84. Many senior drivers continue to drive despite waning physical, perceptual and cognitive capacities that undercut their ability to operate a motor vehicle safely. This can create a risk to the drivers themselves, as well as to passengers, other drivers and pedestrians. In order to make a sound decision regarding when to stop driving, a driver must: (1) recognize a problem exists; (2) determine if they can still drive safely; and (3) when they do stop driving, secure other forms of transportation. Most drivers outlive their ability to drive by 6 (men) to 10 years (women).

Seniors may have diminished ability to divide attention and thus be more prone to cognitive overload in complex driving situations (e.g., making left turns). Not all losses are permanent: after-effects of an illness or side effects of medication can lead to transiently impaired driving. Driving by cognitively impaired drivers is a particular problem. They have reduced capacity to make sound judgments about their own ability to drive.

The demographic bulge known as the baby boomers will affect senior driving as it has other phenomena. If current rates at which people of various ages drive and have crashes do not change, in the next twenty years the proportion of Maine crashes due to drivers over 65 will almost double simply as a result of the population aging. Indeed, it is likely that the numbers will be even higher because a larger proportion of this cohort has driven and may be expected to continue to drive.

Most mature operators are careful and experienced drivers who retire gradually from driving as their capacity diminishes. Law enforcement and motor vehicle bureaus can raise the issue, but the driver and her/his family, often supported by the family physician, are usually the ones who recognize when a family member is at an unacceptable crash risk. Physicians often lack the experience and tools to evaluate driving risk and may feel conflicted about reporting, given their primary role as patient advocates¹. In 2003, the American Medical Association (AMA), with support from the National Highway Traffic Safety Administration, published the Physician's Guide to Assessing and Counseling Older Drivers to provide physicians with background information and screening tools [the Assessment of Driving-Related Skills (ADReS)] for dealing with older driver issues among their patients. ADReS includes vision, cognition, and physical function tests. A study of ADReS found the evaluation to be sensitive (it identified all potentially risky drivers) but not as specific (it also identified seniors who passed a behind-the-wheel driving assessment). Impaired executive function-measured by tools such as trailmaking, clock drawing, and maze completion, as well as visuospatial skills seems to be the most relevant predictor of driving performance. Many of these assessments have been combined and made available by the American Automobile Association both on-line, in regional offices, and by compact disk.

Projected Rate of Crashes among Young and Old Drivers 2008-2028						
Year	2008	2013	2018	2023	2028	
Crashes among drivers <20	5715	4910	4647	4708	4602	
Crashes among drivers 65+	4975	5679	6686	7749	8581	
Crashes among drivers 75+	2045	2060	2206	2635	3176	
Ratio of Crashes among Drivers 65+/ to Crashes among Drivers <20						
Ratio Driver 65+/ <20	87%	116%	144%	165%	186%	
source: MCD analysis, 2010						
Estimate based on 2008 crashes by age group in Maine (MeDOT data) and U.S. Census population projections. As population ages, the age mix of people with crashes changes						

Mature Drivers Additional Information:

Maine Secretary of State's (SOS) office is beginning to explore any and all resources that may be available for drivers to evaluate their current abilities and discuss how these skills may be affected by certain medical conditions or the aging process.

Maine has the oldest population per capita in the United States. Maine has more than 189,000 drivers over the age of 65, roughly 20 percent of all drivers in the state. National statistics have shown that drivers over the age of 70 are involved in more fatal crashes per miles driven than any other age group except for teens

An exploratory process is being undertaken to see what opportunities might be available to educate the state's aging drivers. The intention with the Senior Driver Initiative is not to "toughen restrictions" on senior drivers but to ensure that every driver is given the education and opportunity to enhance their driving skills, as needed, as we age.

Activities are aimed at both maximizing safety and also to assist seniors in maintaining their independence in such a rural state, looking to ensure that elderly drivers are able to stay on the road as long as it's safely possible.

AAA Northern New England is very active in providing information through its outreach programs to senior drivers and is working together with the Secretary of State's office. The Secretary of State is considering collaborative partnerships with AAA's and auto dealers to provide educational opportunities and offer assistance to as many drivers as possible.

SOS's Office is looking to create an environment where drivers can learn about and see demonstrations of technology available in today's automobiles, which may be beneficial to an aging driver, and have representatives available from the SOS's who are knowledgeable about how certain medical conditions affect a person's driving ability and help recognize both strengths and opportunities for improvement in a driver's current skills. Goal is to reach the greatest population and make this program available at a local level.

This initiative is solely for safety educational opportunities as it relates to the needs of Maine's aging driver population. These educational opportunities would be available to those that think they may need some assistance or that would like to prepare for the future. They will not be made mandatory.

STRATEGIES BY CATEGORY

Engineering

- Use Safety Edge treatment on key corridors to minimize sudden drop offs and vehicle transition issues from the shoulder to the travel lane (done on 2009 I-295 paving, and need to identify other priority opportunities).
- Identify priority areas where edge-line and center-line rumble strips should be provided to reduce run-off-the-road and head-on crashes. Identify additional corridors for 2011 and after.
- Reduce exposure to interstate head-on crashes by installing median cable guardrail on a phased basis; starting with I-295 (began in 2009).
- Identify and evaluate key corridors that experience the highest incidence of lane departure crashes.
- Merge “safety” thinking into the MaineDOT procedures and project planning through the use of road safety audits and corridor analysis to help prioritize future safety needs. Ensure that streets are clearly and properly posted with speed limit signage and that it is consistent with DOT-approved speed zones. When appropriate and if feasible, the speed limit can be painted on the roadway.
- Evaluate/identify intersections of most concern and develop solutions for reviewed locations
- Use roundabouts and other “outside the box” methods to correct problem intersections.
- Develop a pedestrian safety signage program to install crosswalk and other safety-related signage in communities and on state roads.
- Identify high animal crash locations.
- Identify possible animal/vehicle crash reduction solutions.
- Decrease or eliminate response times for maintenance crews when treating roadways (interstates and major arterials) during winter storms.
- Enhance detection capabilities of roadway weather conditions.

Enforcement

- Enhance speed enforcement efforts by targeting high incidence locations through Strategic Area Focused Enforcement (SAFE) – see also the Speed section of this plan.
- Enhance speed enforcement efforts by targeting high-incident locations. These locations can be determined by crashes, citations/warning for speeding, complaints, and speed data recorders
- Continue to provide state and local law enforcement agencies with funding opportunities to participate in target enforcement campaigns regarding illegal speed.
- Provide funds to state and local law enforcement agencies to acquire needed equipment such as LIDAR, radar units, in-car video, speed measuring trailers, speed/traffic data recorders, and computers.
- Provide equipment incentives to state and local law enforcement agencies that consistently enforce traffic related activities when not performing Department of Public Safety campaigns.

- Continued use of aircraft for traffic enforcement
- Provide grant funding to Maine law enforcement agencies to participate in the May and November NHTSA “Click It Or Ticket” national safety belt high visibility enforcement crackdown periods
- Add a position of Traffic Safety Resource Prosecutor (TSRP), likely assigned to either Maine BHS or the Attorney General’s Office
- Increase ability of Maine Health and Environmental Testing Laboratory (HETL) to test for drugs.
- Increase blood/breath sample collection ability in rural areas. Can be accomplished by purchasing Intoxilyzer 8000 portable breath testing instruments, training officers as phlebotomists for blood draws, contracting with local EMS personnel, or any combination thereof.
- Distracted driving enforcement - Support BHS in national high-visibility enforcement and education campaigns (e.g. Put It Down) as a major component of decreasing distracted driving.
- Specified patrol – Coordinate with state, local and county law enforcement agencies to encourage targeting of high risk suspects and repeat offenders operating after suspension. We can then establish enforcement details and target these offenders during their commute.
- OAS roadblocks – Encourage state, local and county law enforcement agencies to conduct roadblocks designed to apprehend suspended or unlicensed operators.
- Enhance prosecution of operators who are suspended for aggressive and dangerous driving practices. Work with the district attorney offices and the courts to focus prosecution efforts on suspended drivers who are causing our serious personal injury and fatal motor vehicle crashes.
- Court Patrol – Work with state, local and county law enforcement agencies to establish enforcement details at the courthouses within their jurisdiction to apprehend suspended or unlicensed drivers as they travel to and from their court dates.
- Develop a mechanism in the Maine Crash Reporting system to identify the reason an operator that is involved in a crash was suspended. This information will allow us to better understand what types of suspended drivers are involved in these crashes.
- Pursue targeted enforcement efforts that will lead to educational opportunities. Every time enforcement interacts with commercial motor vehicle operators, especially during targeted campaigns, there is an opportunity to educate these drivers on the importance of such things as seat belt use/compliance, distracted driving, aggressive driving, driver fatigue and overall driver professionalism. It has been suggested that such an endeavor might be received better if it were held during National Truck Driver Appreciation Week in the future.
- Work with law enforcement professionals to identify problem intersections.
- Develop training software through Justice Planning & Management Associates (JPMA) for Standardized Field Sobriety Testing (SFST) refresher.

Education, Training and Outreach

- Behavior strategies – include lane departure message in broader outreach and media efforts.
- Coordinate efforts of MaineDOT with local municipalities through continued Local Technical Assistance Program (LTAP) and other municipal outreach

- Fund a full time seat belt educator to provide seat belt education and outreach to individuals of all ages through the use of convincer and roll-over simulator demonstrations and public presentations
- Promote a dedicated outreach program to educate Maine minority populations regarding the benefits of using safety belts and child restraints
- In conjunction with the University of Southern Maine's Muskie Research Center, conduct an observational survey to determine safety belt use in Maine.
- Support a project with the Teen Driver Safety Committee or Strategic Highway Safety Plan Teen Driver Committee that is designed to increase the teen seat belt usage rate and decrease unbelted injuries with teens.
- Increase education to parents regarding child occupant protection/passenger safety for the age group of 8-12.
- Integrate variety of partners and stakeholders to participate in the Teen Driver Safety Committee (TDSC) activities.
- Increase parental involvement in developing a safe teen driver.
- Increase public awareness of drug impaired driving through media campaigns, press releases and signage
- Public education/awareness - Launch an awareness campaign regarding distracted driving
- Increase motorcycle rider education participation for new riders through a novice rider course.
- Increase motorcycle rider education opportunities for experienced riders.
- Develop and produce public service announcements advising of the dangers posed by drivers who operate after suspension. These announcements will also advise operators of the penalties they will face if they choose to operate after suspension.
- Improve notification to operators when their license is being suspended.
- Effectively communicate the importance of safety regulatory compliance as a means to increase safety awareness. The Bureau of Motor Vehicles has mailing information for all Maine carriers with a DOT number, which can be used to send out a one-page reminder of issues they need to consider such as drug and alcohol requirements, seat belt use, log books/hours-of-service, medical cards, Driver Vehicle Inspection Reports (DVIRs), CSA 2010 and the importance of pre- and post-trip inspections
- Build public understanding of and acceptance of mature driver needs
- Refine the elements of a system of assessment that can be entered in a variety of ways. It needs to be effective in identifying mature individuals most at risk if they continue driving.
- Enhanced self-screening for improved safety of mature drivers that focuses on various outreach strategies and seeks to identify which approaches are most effective at engaging the drivers and families most likely to be facing driving transitions.
- Bureau of Motor Vehicles Senior Driver Assessment Pilot (SDAP) focuses on identifying and addressing organizational, legal and budgetary issues related to adopting and adapting test batteries trialed in other states at the regional BMV offices in our two study locations in anticipation of developing a policy proposal for Maine.

- The linking testing and transportation project will work in the same two regions of the state with current and prospective senior transit providers to build a system that offers priority access to existing services to newly transitioning senior drivers and builds support for and integration of senior transit systems.
- Increase public awareness of the hazards of winter driving, and educate them on appropriate driving techniques to use under these conditions.
- Educate municipalities, planners and advocates on the policies, processes, and funding opportunities available to improve conditions for pedestrians in their local communities through annual conferences, educational programming, presentations and media campaigns.
- Expand safety awareness campaigns including Share the Road campaigns for pedestrians, Pedestrian Safety Education programming in schools, law enforcement training, and Safe Routes to School travel plans and encouragement programs.
- Create a web page that provides safety information on the tools and resources available for communities to identify deficiencies in the pedestrian network, how to make improvements, and safety information.
- Educate municipalities, planners and advocates on the policies, processes, and funding opportunities available to improve conditions for bicyclists in their local communities through annual conferences, educational programming, presentations and media campaigns.
- Expand safety awareness campaigns including Share the Road campaigns for bicyclists, Bicycle Safety Education programming in schools, law enforcement training, GoMaine Bicycle Commuter Programs, and Safe Routes to School travel plans and encouragement programs.
- Continue and expand state agency coordination regarding planning processes, policy implementation, outreach efforts and programming to ensure that relevant state agencies are working towards well-planned communities with safe bicycle infrastructure.
- Foster collaboration and partnerships – including state and federal agencies, the private sector, health, safety, and planning professionals, - to improve coordination and partnerships with the myriad of groups working on improving conditions for biking.
- Create a web page that provides safety information and the tools and resources available for communities to identify deficiencies in the bicycle network and how to make safety improvements.
- Continue and expand state agency coordination regarding planning processes, policy implementation, outreach efforts and programming to ensure that relevant state agencies are working towards well-planned communities with safe pedestrian infrastructure.
- Foster collaboration and partnerships - including state and federal agencies, the private sector, health, safety, and planning professionals - to improve coordination and partnerships with the myriad of groups working on improving conditions for walking.
- Pursue new and additional allocations of funding for pedestrian improvements.
- Pursue new and additional allocations of funding for bicycle improvements.
- Fund bicycle lane creation efforts to create defined bike lanes in urban areas to improve bicycle safety and encourage more of the public to feel comfortable biking.
- Continual public outreach activities regarding animal crashes



Legislative

- Evaluate legislation that would accumulate speeding convictions that have occurred during a ten-year period
- Assess whether legislation would enhance safety by adding a statutory surcharge for speeding convictions of 20 mph or more over the speed limit.
- Assess whether legislative change to Maine's Motor Vehicle Statute should include an "illegal per se" law for drivers operating with drugs in their system, and permit administrative drivers' license suspensions for drivers who operate with drugs in their system.
- Engage policy-makers to explore enriching Maine's current distracted driver law by implementing a component that prohibits texting while driving.
- Evaluate legislation that could better focus on suspended drivers who are causing serious crashes. Currently the privilege for someone to operate a motor vehicle can be suspended for a variety of reasons. As a result our court system is overwhelmed and is not vigorously prosecuting operating after suspension cases. Legislation could focus on imposing stricter penalties for operators who are suspended for aggressive and dangerous driving practices.
- Strongly support Maine's efforts to make the interstate truck weight pilot project permanent.
- Improve state and local policies and ordinances to ensure that pedestrian connections are made whenever feasible as part of all road improvement projects, developments, site plan approvals, and traffic and environmental mitigation efforts. Encourage municipalities to direct development into compact growth areas with interconnected streets.
- Improve state and local policies and ordinances to ensure that bicycle connections are made whenever feasible as part of all road improvement projects, developments, site plan approvals, and traffic and environmental mitigation efforts. Encourage municipalities to direct development into compact growth areas with interconnected streets.
- Evaluate legislation that would accumulate speeding convictions that have occurred during a ten-year period. For example, should three or more convictions for speeding of 20 or more mph over the speed limit within a ten-year period result in the licensee losing his/her privilege to operate (after hearing) in the State of Maine for a period of 30 days? This suggestion will require coordination of law enforcement and Bureau of Motor Vehicles (BMV).

MAINE STRATEGIC HIGHWAY SAFETY PLAN CONTRIBUTING MEMBERS



