

New Hampshire
Strategic Highway
Safety Plan

Driving Toward Zero Deaths

2012-2016

DRIVING
TOWARD
ZERO



One Death Is Too Many

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This plan has been drafted and is presented by the New Hampshire Toward Zero Deaths Coalition. The coalition is comprised of stakeholders from multiple state agencies and organizations.



Dear New Hampshire Citizens:

The following pages comprise the State of New Hampshire's 2012 Strategic Highway Safety Plan (SHSP). It is the result of a collaborative effort of safety stakeholders. This plan is data-driven and identifies statewide goals and strategies targeting highway safety improvements proven to reduce traffic crashes. The SHSP serves as a roadmap for federal, state, and local agencies; planning commissions; the private sector; and concerned citizens working together to reduce crashes, injuries, and deaths on New Hampshire's roads.

Since the creation of New Hampshire's first Strategic Highway Safety Plan in 2007, there has been an 11 percent reduction in traffic fatalities, equating to nearly 14 fewer lives lost per year. The updated plan builds on this success, targeting the State's current safety concerns, and adopts the vision of "Zero Deaths."

Although a committee of professionals representing agencies and organizations that are directly involved in safety created this plan, it is you, the citizens of New Hampshire, who hold the power to effect true change. History shows that driver behavior is a major contributor in the reduction of crashes. To realize the vision of "Zero Deaths," each of us must remember that operating a vehicle is a privilege and can be dangerous. We must accept personal responsibility for traveling safely on New Hampshire roads.

Every driver, passenger, bicyclist, and pedestrian is important and deserves our full attention and consideration. We must not accept roadway deaths as a matter of course. All drivers in New Hampshire, choosing to be fully aware when they get behind the wheel, will create a profound impact.

We invite you to review the 2012 New Hampshire Strategic Highway Safety Plan and to join us in "Driving Toward Zero Deaths."

“People get in their cars, turn the key, and expect to arrive at their destinations alive.”

Earl Sweeney
Assistant Commissioner,
Department of Safety



*A severe injury is defined as an incapacitating injury. Roadway crash injuries are assessed on-scene by first responders.

THE NUMBERS

91,938 People Injured.

The total number of people injured in traffic crashes in New Hampshire from 2003 through 2010 equates to an alarming average of **11,492** people per year.

5,526 People Severely Injured.

Severe injuries* changes lives—and oftentimes shorten them. There are unimaginable emotional costs and huge financial implications to the injured, their families, and their communities.

1,097 Lives Lost. Gone Forever.

Who were these people? What might they have contributed to our lives, to our state and to our country?

The bottom line is that traffic crashes are preventable—not inevitable.

New Hampshire's goal is to reduce the number of roadway deaths 50 percent by 2030; and continue this program until there are ZERO roadway deaths.

Crashes 2003-2010



Every unsafe act, distracted driving, impaired driving, speeding... carries the risk of a fatality



DRIVING TOWARD ZERO... A SAFETY CULTURE

Eliminating deaths on New Hampshire roadways is an important vision and the driving force behind this plan and the coalition that united in its development. It is also an important vision for the public, all of whom travel New Hampshire's roadways—by car, motorcycle, truck, bicycle, or even on foot—day and night under all types of weather conditions.

Our mission is to create a safety culture where even one death is too many, through a collaborative effort of both public and private entities, as well as the implementation of education, enforcement, engineering, and emergency management solutions.

Our vision is to reduce the number of fatal and severe injury crashes on New Hampshire roadways to ZERO. The principles on which the Strategic Highway Safety Plan was developed comprise a comprehensive, systematic approach in the reduction of crashes on all public roads. The plan is integrated, proactive, and data-driven, both in the selection of counter measures and in the evaluation of results.

The need for New Hampshire to take action to reduce motor vehicle crashes is clear. According to the Department of Safety's Crashes Database, in 2010, 30,736 motor vehicle crashes occurred on New Hampshire's roadways, resulting in 128 deaths and 528 severe injuries. The human and economic consequences of these crashes are unacceptable, unaffordable, and preventable. Over the past five years, traffic crashes have cost New Hampshire residents \$8.65 billion, but the true "cost" of the loss of just one human life is immeasurable.

The purpose of the SHSP is to reduce crashes and the resulting fatalities and injuries by sharing information, combining resources, and targeting our efforts on the critical emphasis areas that analysis shows have the greatest potential for improvement. It is also imperative that the plan is inclusive and accessible to the public at large.



The graph above represents the history of traffic deaths in New Hampshire from 2006 to 2010 and the predicted number of deaths until 2030, providing benchmarks toward attaining our goal.

The data collection that led to the identification of key areas of emphasis and establishing the goals, strategies, and measurable objectives set forth in this plan is the result of the active involvement of a broad-based group of safety stakeholders who accepted the challenge of participating in the SHSP development process. This group will remain involved in the process through the plan’s various stages of implementation. However, the general public—drivers, riders, and pedestrians of all ages—truly holds the power to effect change by choosing to adopt the safety measures outlined here and by choosing **not** to accept roadway crash-related fatalities and injuries as an unavoidable “cost of doing business.”

OUR GOAL

The vision of the Strategic Highway Safety Plan is to have ZERO Traffic Deaths on New Hampshire roadways. Though our overall goal is to realize zero fatalities, we have set a plan goal of reducing the number of fatalities and severe injuries by 50 percent by the year 2030.

Through the initiatives outlined in this plan, technological advances, and the creation of a culture where traffic fatalities and injuries are no longer acceptable, we believe a 50 percent reduction in fatalities and severe injuries is attainable by the year 2030.

Investment in technology drives improved safety. Improvements in the safety of vehicles, detection and warning systems, traffic control devices, intelligent transportation systems, and state-of-the-art analytical tools for use in the decision-making process contribute to overall roadway safety. We predict that over the life of this plan, research in all areas of highway safety will also contribute to the success of our vision.

A “safety culture” is defined as the enduring value and priority placed on safety by everyone, at every level. This plan seeks to promote a safety culture through examples of personal responsibility, safety awareness, education and outreach, evaluation, adjustment, and of course, constant improvement.

ZERO deaths is the ONLY goal we all can live with.



“People do not, on a regular basis, think of driving a vehicle as a risky event, and this does not just apply to young drivers. Adults share this attitude.”

Rhonda Siegel
 Department of Health and Human Services,
 Program Specialist—Injury Prevention Program Manager,
 Division of Public Health Services

GENERAL STRATEGIES

The New Hampshire Strategic Highway Safety Plan is organized, in large part, into critical emphasis areas. Each area identifies strategies to help reduce fatalities and serious injuries associated with their specific location or behavior. The following general strategies apply to all critical emphasis areas and support the SHSP.

- **Develop emphasis area action plans.**

Action plans put goals into reality and provide a roadmap to give stakeholders and partners direction. Each committee develops an action plan implementing its strategies. In some cases, an action plan may be a pre-existing safety plan or a committee may collaborate with an existing group.

- **Link with other transportation plans.**

Safety is a critical component of many transportation plans. The processes and analysis used in developing the SHSP can be informative for other plans and serve to address challenges before they become a concern.

- Other transportation plans include:

- Commercial Vehicle Plan
- Highway Safety Improvement Program
- Strategic Action Plan
- Long Range Transportation Plans
- State Injury Prevention Plan
- Statewide and Metropolitan Transportation Improvement Program

- **Develop a communication plan and continue to identify ways to create outreach opportunities to raise awareness and to educate the citizens of New Hampshire about roadway safety.**

Raising public awareness through marketing initiatives is a critical element necessary for the success of the plan. These marketing, advertising, and communication strategies may include brand development; print, broadcast, experiential, environmental, online, and digital advertising campaigns; marketing collateral; public relations initiatives; website and microsite design and development; social media tools; presentations; and additional outreach at safety and community meetings, as well as at safety summits.

- **Create targeted messaging and high visibility enforcement.**

Targeted messaging, in combination with high visibility enforcement activities, is a proven strategy to lower the number of driving fatalities. Message timing is critical in reaching at-risk drivers. Therefore, the use of the highway electronic message boards, paid media, and earned media has been and will continue to be integral parts of all strategies to prevent roadway crashes.



CRITICAL EMPHASIS AREAS

The following pages outline the critical emphasis areas and strategies that determine how each committee allocates limited resources, targeting strategies proven to produce the greatest benefit. Selected critical emphasis areas exhibit a higher number of fatal and severe crashes; these critical emphasis areas focus on specific behaviors or locations.

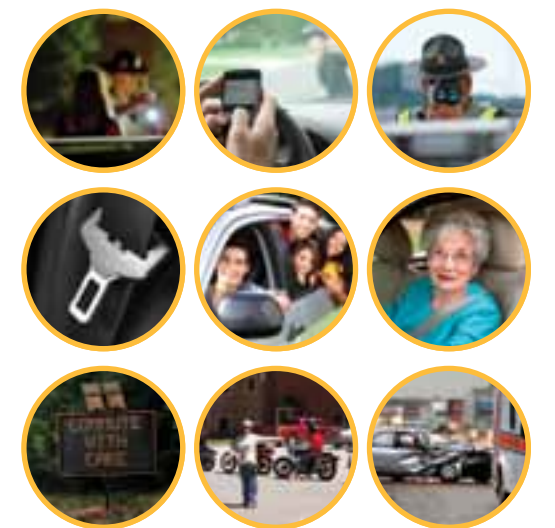
The strategies outlined in each critical emphasis area address each challenge through the integrated application of the 4Es of roadway safety:

- Education;
- Enforcement;
- Engineering; and
- Emergency Management Services.

Collectively, these strategies comprise the action plan that will assist New Hampshire in reducing the number of roadway crashes and resulting severe injuries and fatalities.

Emphasis areas addressed by the 2012 New Hampshire SHSP include:

- Impaired Driving;
- Distracted Driving;
- Speeding;
- Vehicle Occupant Protection;
- Adolescent Drivers;
- Older Drivers;
- Crash Locations;
- Motorcycles and Vulnerable Roadway Users; and
- Comprehensive Safety Data.



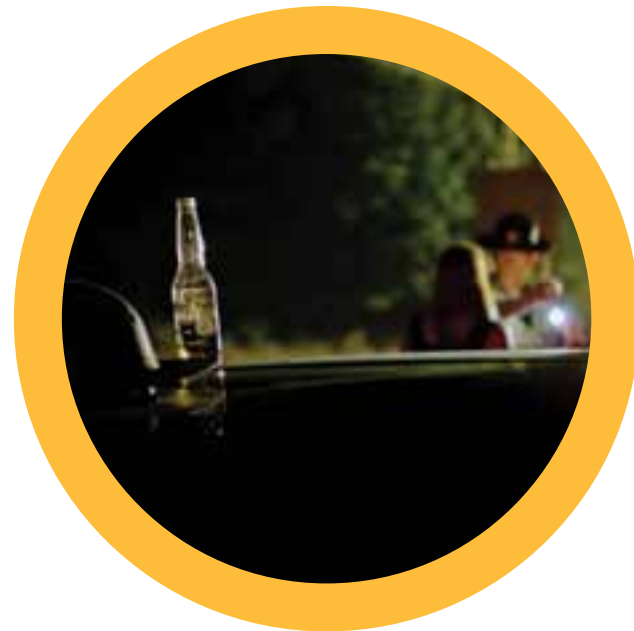
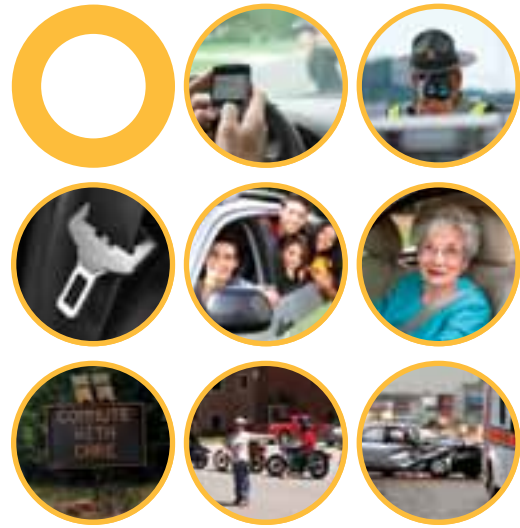
IMPAIRED DRIVING

OUR CHALLENGE

New Hampshire has seen a steady rate of impaired driving fatalities over the last decade. Approximately 37 percent of all crashes involving fatalities in the state are alcohol related.

In addition to alcohol impairment, the instances of crashes involving drugged drivers are increasing at an alarming rate. A recent national study showed that in 25 percent of all fatal crashes, the drivers tested positive for drugs.

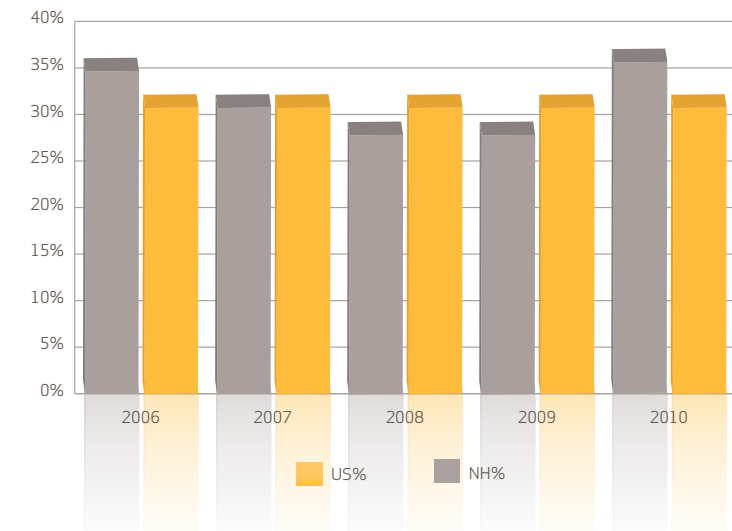
Impaired driving is not restricted to a specific time of day or day of the week. These crashes occur at all hours of the day and night, seven days a week on New Hampshire roadways.



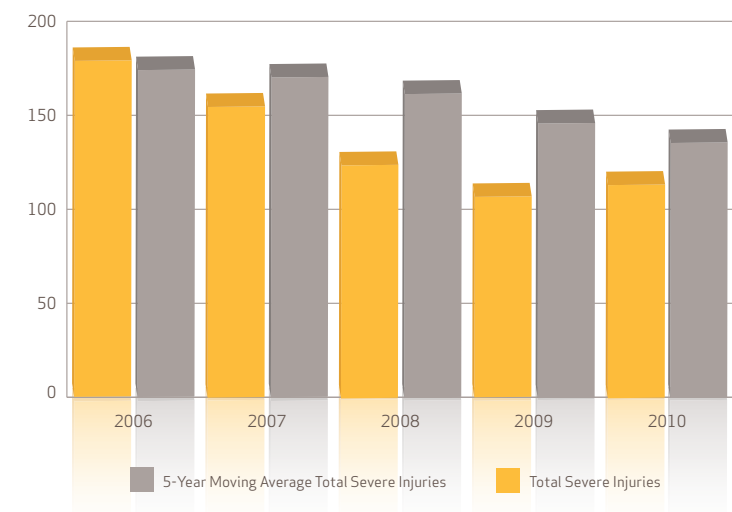
OUR GOAL

Our goal is to eliminate impaired driving, and the resulting severe injuries and fatalities, from New Hampshire roadways.

% Of Fatalities Alcohol Related, US vs. NH



Alcohol Related Severe Injuries in NH



OUR FOCUS STRATEGIES

Develop a well-designed prescription drug-monitoring program to reduce prescription drug-impaired driving.

A prescription drug-monitoring program (PDMP) is designed to assist health care professionals in accurately assessing the needs of their patients when prescribing controlled drugs. New Hampshire is one of only two states in the nation that do not have a PDMP. A well-designed PDMP may reduce several types of crime, including doctor-shopping, fraud, and driving under the influence of drugs. PDMP may also lower the number of unintentional drug overdose deaths.



OUR CONTINUING STRATEGIES

- Improve collection and use of impaired driving data for stronger enforcement.
- Continue targeted patrols and implement all-hours patrols utilizing drug recognition experts (DREs).
- Increase the number of roadway checkpoints staffed by experienced officers.
- Encourage collaboration between local and state police to proactively address the dangers of impaired driving.
- Incorporate additional field sobriety testing, breathalyzer training, and DRE training into both the part-time and full-time police academies.
- Promote the creation of a prescription drug-monitoring program (PDMP) in New Hampshire.
- Increase the range of drugs for which the State Police Toxicology Laboratory tests.
- Promote motorist reporting of impaired drivers.
- Promote programs that educate the public about the risks and consequences of impaired driving.
- Encourage collaboration with medical, pharmaceutical, and alcoholic beverage companies to promote awareness and education about the dangers of impaired driving.

DISTRACTED DRIVING

OUR CHALLENGE

Distracted driving is any non-driving activity that a person engages in while driving that has the potential to distract him or her from the primary task of driving. The four main types of distraction are visual, manual, cognitive, and drowsiness. Texting while driving encompasses three of these distraction areas.

Currently, the crash reporting form used in New Hampshire does not clearly differentiate between types of distracted driving. However, anecdotal information indicates an increasing challenge. Nationally, the age group with the greatest proportion of distracted drivers is the under-20 group. According to the National Highway Transportation Safety Administration (NHTSA), 16 percent of all drivers younger than age 20 who were involved in fatal crashes were driving distracted.

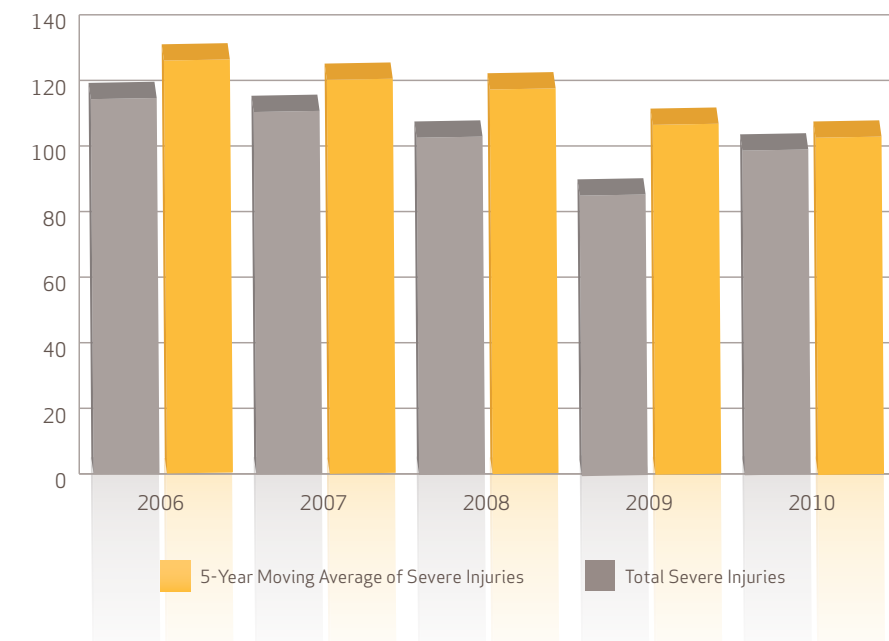
New Hampshire law bans texting for all drivers; however, general cell phone use is still allowed, making it difficult to determine whether a driver is texting or dialing a number.



OUR GOAL

Our goal is to raise public awareness about the dangers of driving while distracted and to eliminate the fatalities and severe injuries resulting from distracted driving crashes.

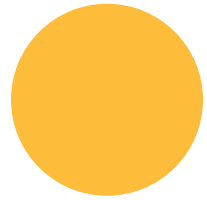
Total Severe Injuries from Driver Inattention with a 5-Year Moving Average



In 2009, 5,474 people were killed on U.S. roadways and an estimated additional 448,000 were injured in motor vehicle crashes that were reported to have involved distracted driving.

In the US, the age group with the greatest proportion of distracted drivers was the under-20 age group—16 percent of all drivers younger than 20 involved in fatal crashes were reported to have been distracted while driving. In NH, this age group represents the largest percentage of crashes of licensed driver.

OUR FOCUS STRATEGIES



Promote strong laws, enforcement, and education based on data analysis and available studies.

The rate at which technology is advancing makes this a difficult challenge; however, the New Hampshire Legislature should consider passing laws that encompass more actions and devices to improve safety and enforcement.

Support development and implementation of new technologies that alert drivers to hazards on the road.

Technology drives safety improvements. Supporting systems that alert drivers to unsafe acts and conditions help them be better drivers, thereby reducing the number of distracted driving-related fatal and severe crashes.



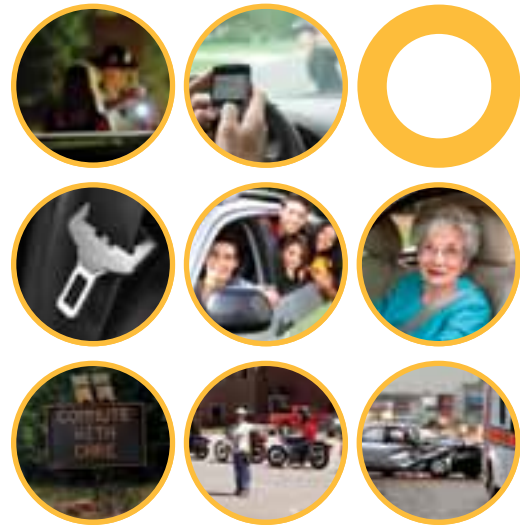
OUR CONTINUING STRATEGIES

- Install shoulder and centerline rumble strips where possible.
- Develop a Distracted Driving Action Plan.
- Promote increased hours for driver education.
- Promote corporate programs addressing distracted driving.
- Support targeting periods of enforcement with local/state collaboration (e.g., morning and evening commute times).
- Support increased use of roadway checkpoints.

SPEEDING

OUR CHALLENGE

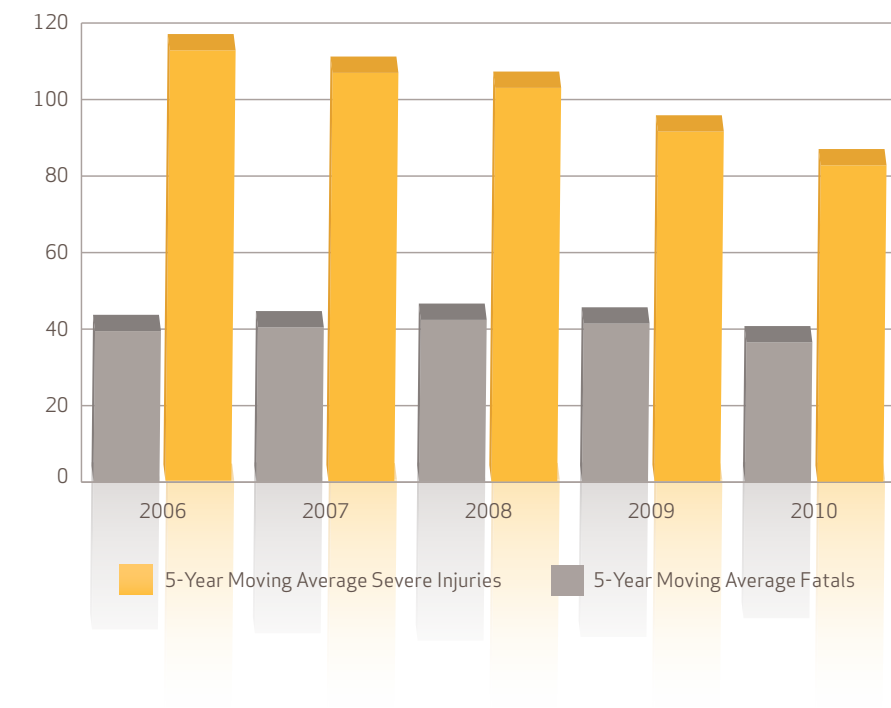
Speeding contributed to 240 fatalities in New Hampshire over the past five years. In 2009, 70 percent of fatal speeding crashes occurred on curved roadways, 65 percent were on town roadways, 25 percent occurred at intersections and 45 percent involved alcohol.



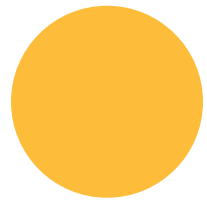
OUR GOAL

Our goal is to eliminate speeding on New Hampshire roadways and the fatalities and severe injuries that occur as a result of crashes caused by speeding.

Fatalities and Severe Injuries From Speeding



OUR FOCUS STRATEGIES



Educate the public as to the dangers and consequences of speeding.

It takes nearly three times the distance to stop a vehicle traveling 60 mph versus 30 mph. The probability of fatality when a vehicle traveling 20 mph strikes a pedestrian is 5 percent; at 40 mph it is 85 percent. Understanding the dynamics related to the control of a speeding vehicle can help drivers make educated choices.

Provide for law enforcement operations in the design, construction, and maintenance of roadways.

For the safety of the public and to aid law enforcement, highway design should accommodate pullouts and turnarounds so officers may safely monitor roadways and pursue and apprehend offenders.



OUR CONTINUING STRATEGIES

- Support the NHTSA Local Speed Workshops for communities.
- Identify and deploy targeted enforcement in known speeding corridors.
- Develop guidance for traffic-calming measures at community gateways.

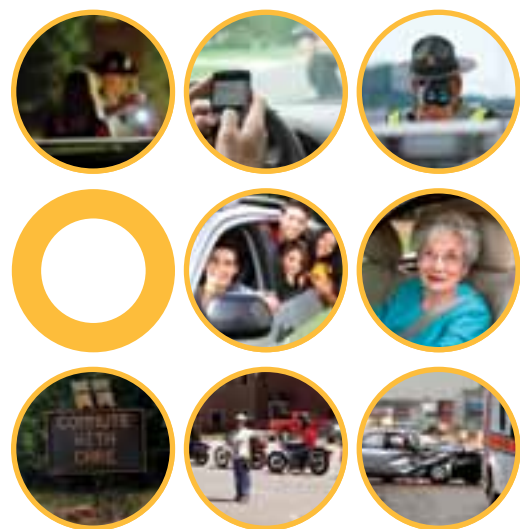
VEHICLE OCCUPANT PROTECTION

OUR CHALLENGE

Buckling one's seat belt is the single, most effective action to protect a person from serious injury and death in a roadway crash. Research has found that lap-shoulder seat belts reduce the risk of fatal injury to front seat occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent, depending on the type of vehicle and seating position involved. For light truck occupants, safety belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent (NHTSA, 2005).

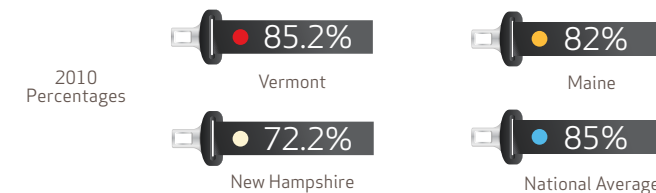
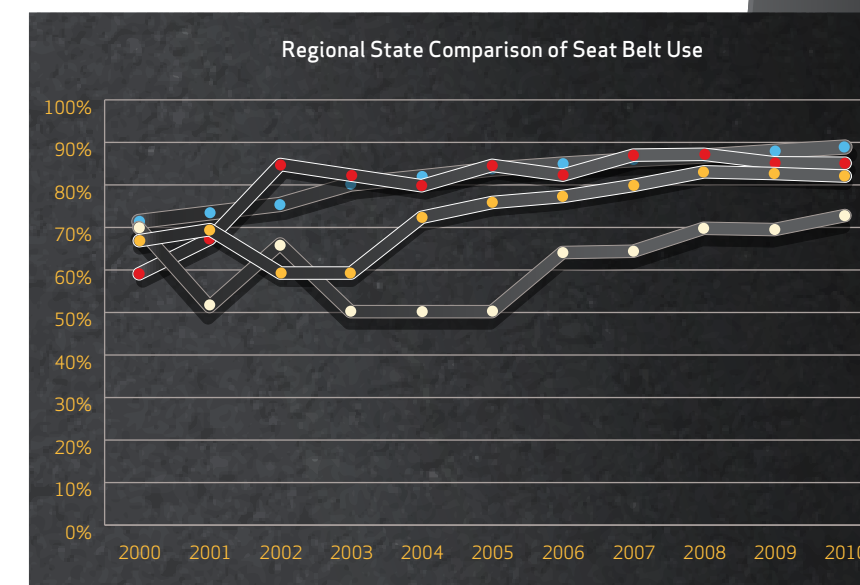
Seat belt use by New Hampshire residents is increasing and reached an all-time high of 72 percent in 2010, a 22-point increase since 2003. In 2009, New Hampshire reported 65 percent of persons fatally injured in all types of roadway crashes were not using seat belts.

New Hampshire has the unique distinction of being the only state that does not have a seat belt law for adults. This fact affects more than the individual user. Research shows that passenger restraint use for children is higher when the driver is also belted. In addition, the current law also hinders law enforcement in identifying violators of the existing primary seat belt laws for those under age 18.

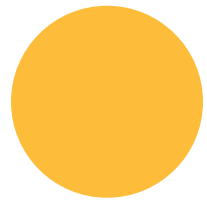


OUR GOAL

Our goal is to increase the use and effectiveness of vehicle occupant protection to 100 percent.



OUR FOCUS STRATEGIES



Support the adoption and the enforcement of a primary safety belt law.

With a primary seat belt law, New Hampshire could save an estimated seven lives per year, 149 serious injuries, and \$37 million in related costs. In 2009, 79 people died in vehicle accidents while riding in cars and light trucks. Of these people, 62 percent were not wearing seat belts.

Amend the existing primary seat belt law to include proper restraints for children ages eight years and younger.

Safety belt and child restraint laws in New Hampshire require all occupants under age 18 to use a seat or safety belt. Children ages five and younger are required to use a child safety restraint system. As of March 2011, the National Highway Traffic and Safety Administration recommends that all children through age 12 should ride in the back seat of a vehicle. Young children up to three years of age should be in a rear-facing safety seat, or until their height or weight reaches limits set by the seat's manufacturer. Children ages four to seven should be in a forward-facing car seat with a harness, until they have outgrown the weight and height limits set by the seat manufacturer, at which time they should switch to a booster seat. Between ages 8 and 12, children should remain in booster seats until they are big enough to have a seat belt fit properly.



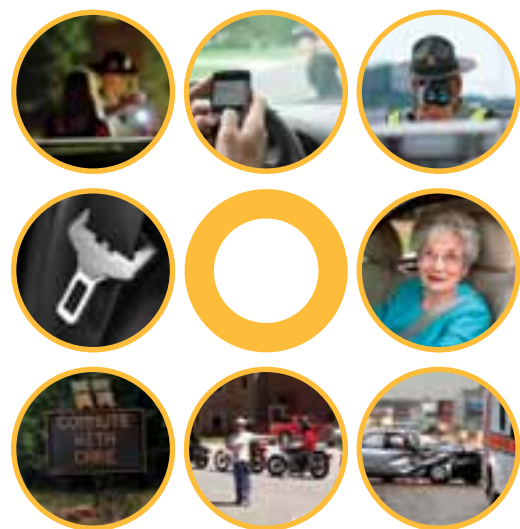
OUR CONTINUING STRATEGIES

- Partner with the Buckle Up New Hampshire Coalition.
- Target seat belt usage for pickup truck drivers and teen drivers.
- Develop a child passenger safety action plan.
- Increase enforcement of existing child restraint laws.
- Provide child restraint educational information to medical personnel.

ADOLESCENT DRIVERS

OUR CHALLENGE

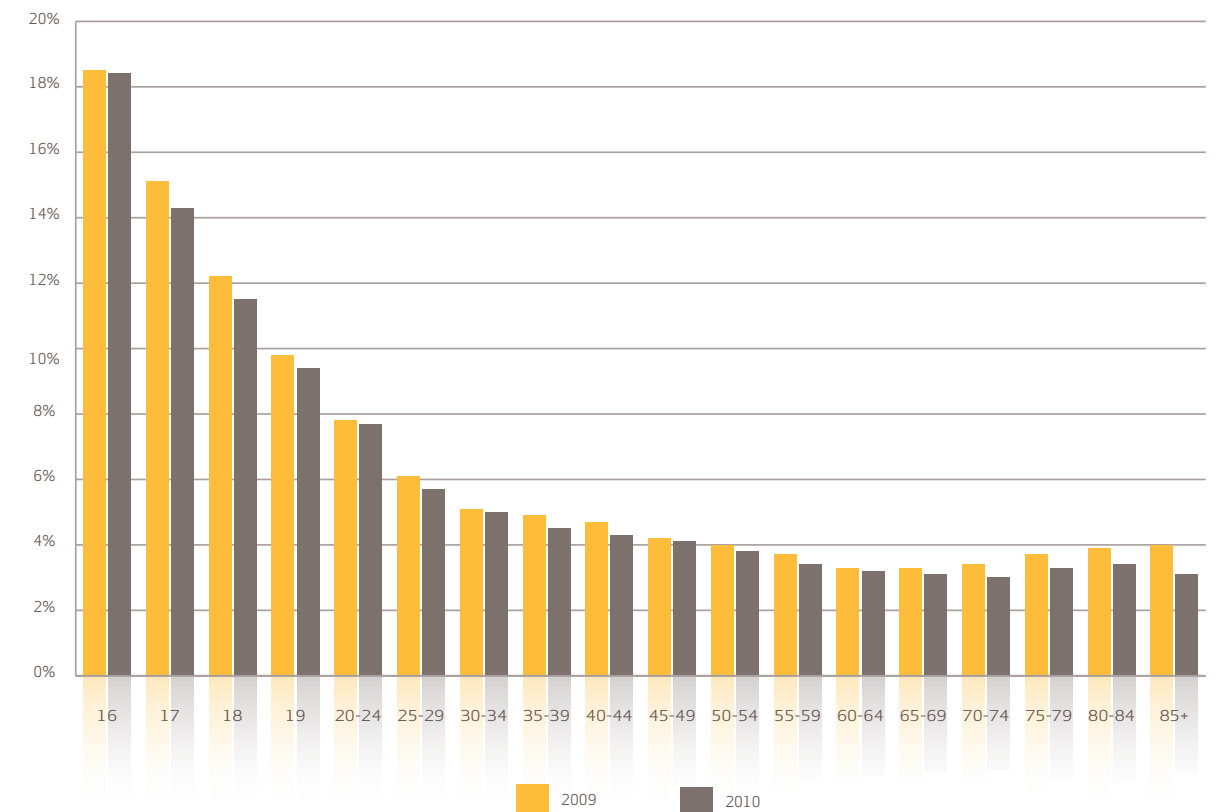
Speed and the inexperience of novice drivers are the major causes of fatal crashes among teens, according to the New Hampshire Division of Motor Vehicle's Fatal Accident Reporting System. Novice drivers, 16 and 17 years of age, hold approximately two percent of the total number of drivers' licenses in the state; however, reports show that these same drivers were involved in 18 percent and 15 percent, respectively, of total crashes.



OUR GOAL

Our goal is to reduce teen driving crashes and resulting fatalities and severe injuries to zero.

% NH Crashes Per Licensed Driver Age Group



New drivers, aged 16-19, represent the highest number of crashes among the different age groups of licensed drivers in NH. Many reasons account for this, but distracted driving (texting and cell phone use), in addition to driver inexperience, are the two most important prevalent.

OUR FOCUS STRATEGIES

Strengthen graduated licensing laws.

Graduated driver licensing systems have proved to be effective in reducing the number of crashes and fatalities. A graduated driver's license involves three stages for licensing adolescent drivers: permitting (about six months and 30 to 50 hours of supervised driving), intermediate licensing (until age 18, nighttime and passenger restrictions), and full licensing (no restrictions or provisions). In New Hampshire, there is no permitting phase, but New Hampshire does have a youth operator license for drivers between the ages of 16 and 20. This license restricts nighttime driving (between 1:00 a.m. and 4:00 a.m.) for those under age 18 and limits the number of passengers a teen driver may have in his or her vehicle for the first six months of licensure.

Increase community and parental involvement encouraging safe teen driving practices.

Parents are a strong influence and example for adolescents. Research has shown that adolescents drive in ways similar to those of their parents. Parents also remain the primary people responsible for preparing their adolescents for independent driving. The research is also clear that risky driving, traffic violations, and crashes are lower among adolescents whose parents apply restrictions and set expectations, such as consistent seat belt use. When lap and shoulder belts are used in cars, research has shown a 45 percent reduction in the risk of a fatal injury to people in the front seat.



OUR CONTINUING STRATEGIES

- Target educational outreach to novice drivers, ages 16 and 17.
- Increase awareness of risk and consequences of unsafe driving behaviors.
- Increase parental involvement in graduated driver licensing and training.
- Increase the availability of monitoring technologies and driving simulators.
- Update driver education instructors' skills and competencies.
- Support legislation and enforcement of distracted driving and seat belt usage laws.
- Support increases in enforcement of the primary seatbelt law up to age 18.

According to the NH Highway Safety Agency's 2010 Observational Seat Belt Survey, only 50% of all teen drivers wear seat belts.

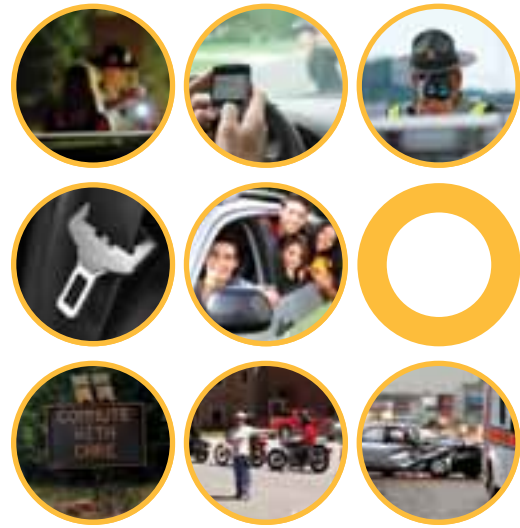
OLDER DRIVERS

OUR CHALLENGE

According to AAA, today's older Americans are healthier and more active than ever before. With the aging of the baby boomer generation, people over age 65 are the fastest-growing population in the United States. Seniors are outliving their ability to drive safely by an average of seven to 10 years, depending on gender. Increasing age is associated with a decline in many functional abilities identified as important for driving, including vision, reaction time, and the ability to divide attention between tasks. Older drivers also have an increased likelihood of chronic medical conditions and use of prescribed medications for treatment of these conditions, which can adversely affect driving fitness.

Fatal crash rates increase for drivers reaching age 75. After age 80, the increase is even greater (U.S. Department of Transportation, Fatality Analysis Reporting System). According to the same report, in 61 percent of the crashes involving drivers over age 70, the drivers themselves were killed.

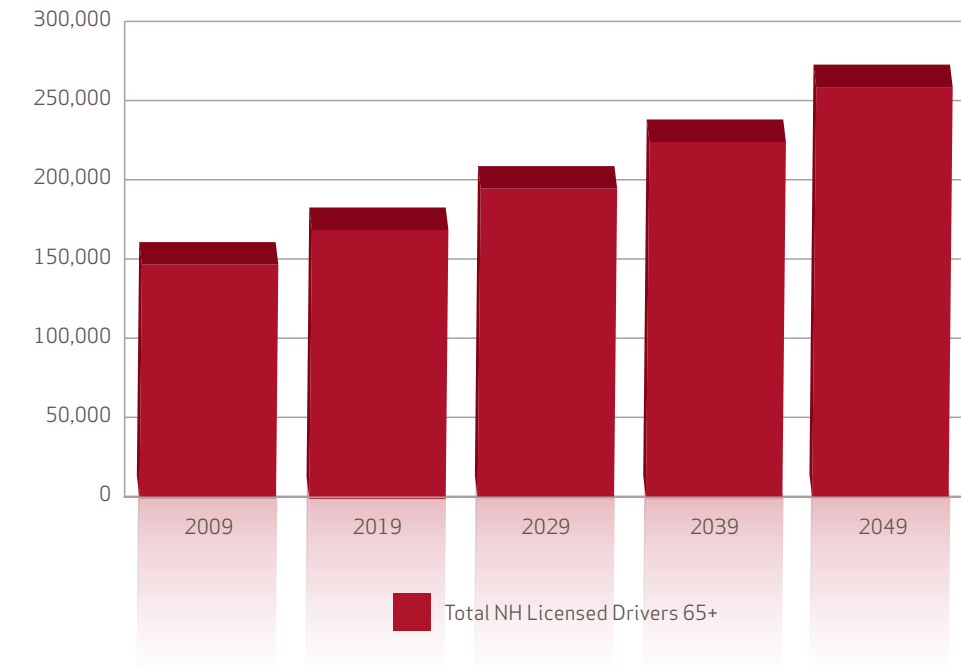
As a group, older drivers travel fewer miles than younger drivers, reducing their crash numbers but, perhaps ironically, this contributes to an increase in their crash rate per mile driven. Older drivers also have a higher seat belt usage rate than drivers ages 18 to 64 years.



OUR GOAL

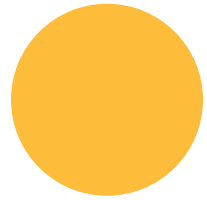
Decisions concerning drivers' abilities should be made case by case, not strictly based on chronological age. Our goal is to reduce the number of crashes involving older drivers and the resulting severe injuries and fatalities to zero.

Total Future Licensed Drivers 65+



Future growth of this age group is based on a 15.1% growth rate from 2000-2010.

OUR FOCUS STRATEGIES



Formalize and convene a State Older Driver Task Force.

This task force will work to bring together “older driver” professionals. It will include engaging the New Hampshire Medical Advisory Board to review screening tools and promote physician-driven recommendations.



OUR CONTINUING STRATEGIES

- Consider older drivers in highway design and maintenance.
- Enhance screening tools used in licensing and develop training and guidelines for Division of Motor Vehicle staff and law enforcement to observe potential medical impairments that can affect driving ability.
- Promote self-assessment and self-reporting programs during the license renewal process.
- Promote legislation that provides immunity for healthcare providers who refer at-risk drivers and develop a system for such reporting by both providers and citizens.
- Expand public transportation alternatives.

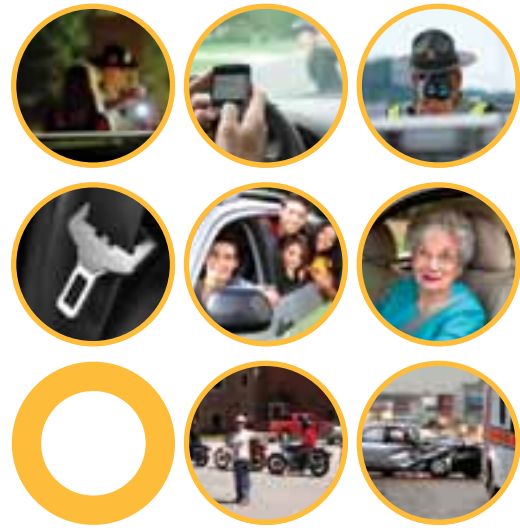
CRASH LOCATIONS

INTERSECTION SAFETY AND LANE DEPARTURES

OUR CHALLENGE

There are two critical crash location types on New Hampshire roadways: intersections and drivers inadvertently departing from travel lanes. In New Hampshire, one in 10 fatal crashes and three in 10 severe injury crashes occur at intersections.

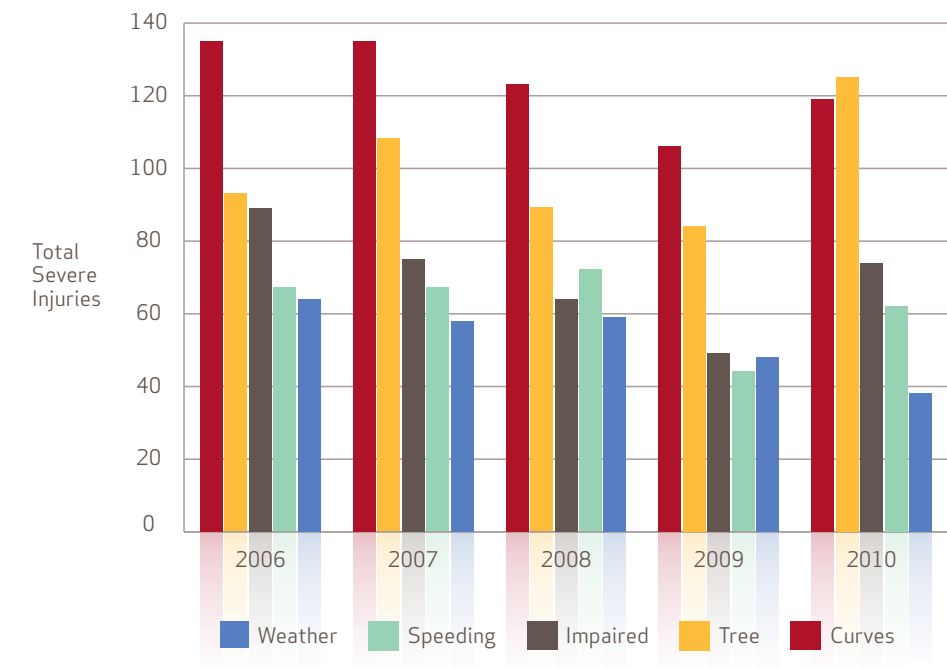
Additionally, approximately four in 10 fatal crashes involve a vehicle leaving its lane. Lane departure crashes include drivers running off the road and those drifting out of their lanes. These crashes are prevalent on a variety of roads, including curved, two-lane roads in rural areas, and they often have contributing factors, including speed, distracted driving, and impaired driving.



OUR GOAL

Our goal is to reduce roadway crashes resulting in fatalities and severe injuries by 50 percent by 2030. While the strategies selected here will reduce specific crash types by more than 30 percent, innovations, new technologies, and the creation of a safety culture will also contribute to our goal.

Top 5 Contributing Factors of Severe Injury Crashes



OUR FOCUS STRATEGIES

Improve driver awareness of intersections, intersection visibility, and sight distance.

Driver awareness at intersections refers to the advance notice of upcoming intersections and existing signing and signals. Recognizing the approach to an intersection prepares the driver for changing traffic patterns and conflicting movements. Clearing vegetation and removing roadside objects and other obstructions at intersection approaches improves intersection sight distance by improving sight triangles. This is a critical issue among motorcycles, bicycles, older drivers, and pedestrians.

Install and maintain centerline and shoulder rumble strips where possible.

Rumble strips are grooves in the roadway surface that provide an alert to drivers when they inadvertently leave their lanes. They provide a tactile response as well as an auditory alert. Rumble strips are appropriate in rural areas where the roadway cross-section is stable enough to support their installation. Rumble strips' auditory response makes them unacceptable in some locations.

Evaluate, standardize, and install delineation, signing, and pavement markings on curves.

New Hampshire has a higher than expected percentage of fatal crashes on horizontal curves. The state has implemented a system-wide signing improvement program, with improvements based on standards and guidance contained in The Manual of Uniform Traffic Control Devices (MUTCD).



OUR CONTINUING STRATEGIES

FOR REDUCING INTERSECTION CRASHES:

- Install approach rumble strips where warranted.
- Install flashing beacons where warranted.
- Implement Statewide Intersection Safety Improvement Plan.
- Install roundabouts where warranted.
- Install offset turn lanes where warranted.
- Install flashing yellow arrows or left turn signals where warranted.
- Consider driveway relocations and closures within 250 ft. of intersections or implement driveway turn restrictions.

FOR REDUCING LANE DEPARTURE CRASHES:

- Develop and implement pavement-edge drop-off prevention and recovery guidance.
- Develop and implement pavement preservation and safety review process.
- Develop and implement guidance for median protection.
- Expand and maintain roadway visibility features.
- Remove, relocate or shield road users from hazardous fixed objects.
- Replace obsolete guardrails and terminals.

SHARED STRATEGIES:

- Improve inventory of roadway elements and crash data collection and analysis.
- Implement a Highway Safety Manual.
- Develop and implement guidance for a Comprehensive Corridor Safety program.
- Develop and implement guidance for a Comprehensive Road Safety Audit program.
- Remind roadway users of the "rules of the road" and safe driving skills.

Fatals and Severe Injuries by County 2006-2010

Merrimack County Fatalities: 79 People Killed

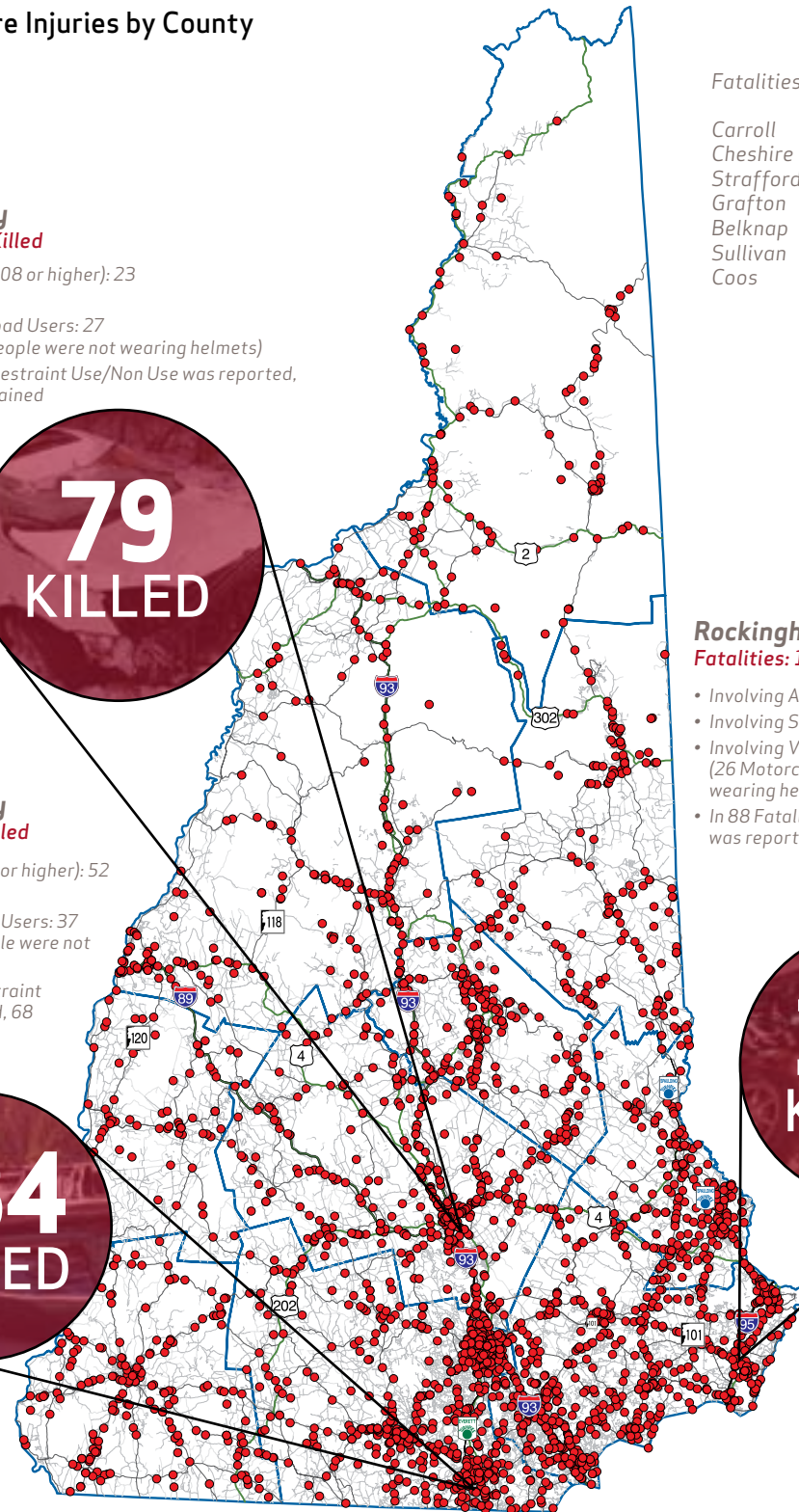
- Involving Alcohol (BAC .08 or higher): 23
- Involving Speeding: 26
- Involving Vulnerable Road Users: 27
(21 Motorcyclists/16 people were not wearing helmets)
- In 52 Fatalities where Restraint Use/Non Use was reported, 35 people were unrestrained

**79
KILLED**

Hillsborough County Fatalities: 134 People Killed

- Involving Alcohol (BAC .08 or higher): 52
- Involving Speeding: 52
- Involving Vulnerable Road Users: 37
(21 Motorcyclists/15 people were not wearing helmets)
- In 95 Fatalities where Restraint Use/Non Use was reported, 68 people were unrestrained

**134
KILLED**



Fatalities in all counties

Carroll	52
Cheshire	52
Stafford	50
Grafton	41
Belknap	39
Sullivan	32
Coos	27

Rockingham County Fatalities: 121 People Killed

- Involving Alcohol (BAC .08 or higher): 39
- Involving Speeding: 47
- Involving Vulnerable Road Users: 32
(26 Motorcyclists/14 people were not wearing helmets)
- In 88 Fatalities where Restraint Use/Non Use was reported, 58 people were unrestrained

**121
KILLED**

“Local fire and police agencies were instrumental in the installation of rumble strips along State Routes 202 and 9, resulting in a noticeable decline in roadway crashes along these routes. This is a perfect example of the success that collaborative efforts yield.”

Jeff Brillhart
Assistant Commissioner, NHDOT

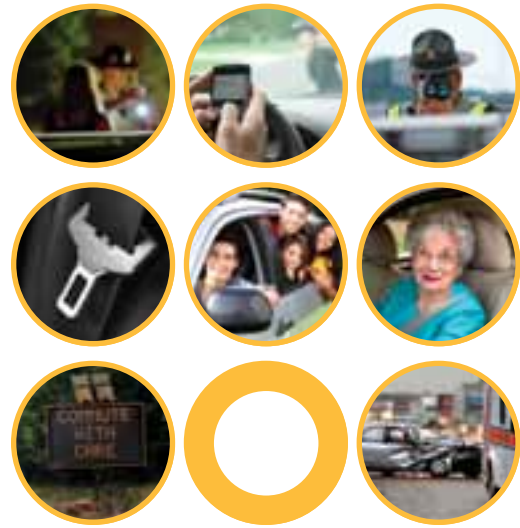
“I have been on the Hopkinton Fire Department for 32 years, the last 12 as chief. The department has seen a dramatic decrease in motor vehicle accidents over the last few years, and I believe this is due largely to the addition of rumble strips and dedicated left and right turning lanes on State Routes 202 and 9, and Interstate 89. Keep up the great work making our highways safe and protecting our first responders.”

Chief Rick Schaefer
Hopkinton Fire Department

MOTORCYCLES AND OTHER VULNERABLE USERS

OUR CHALLENGE

Vulnerable road users include motorcycles, pedestrians, and bicyclists. New Hampshire has more motorcycle riders per capita than any other state. In 2010, there were 28 motorcycle fatalities: 20 of these motorcyclists were not wearing helmets and in 11 of these fatalities alcohol was a factor.

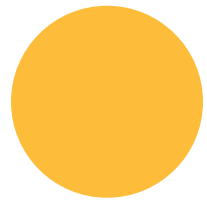


OUR GOAL

Our goal is to reduce motorcycle crashes and improve crash data collection, while improving education, training, and public awareness of vulnerable road users, leading to the elimination of fatalities and severe injuries for this group.



OUR FOCUS STRATEGIES



Raise awareness for, and increase enrollment in, motorcycle training courses.

Develop a program, in cooperation with motorcycle dealers, for riders over 40 years of age to receive vouchers for the state training program with the purchase of a motorcycle. Add new training curricula targeting returning riders and increase the number of motorcycle training sites available. Improve the motorcycle-training website by optimizing the design to create a user-friendly experience.

Target enforcement at events where alcohol and motorcycles mix.

Motorcycle use in New Hampshire is recreational in nature and in 40 percent of motorcycle fatalities, this recreation included alcohol.



OUR CONTINUING STRATEGIES

- Enact a motorcycle helmet law.
- Consider vulnerable road users in the design, construction, and maintenance of the roadway infrastructure.
- Provide accessible travel ways for people with disabilities.
- Identify and implement best practices for improving pedestrian and bicycle safety.
- Increase public awareness of motorcycles.
- Encourage strict enforcement of speed limits in school zones.
- Support biking and walking groups.

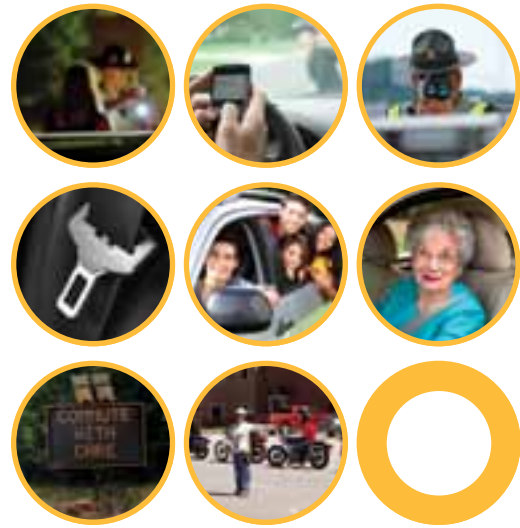
COMPREHENSIVE DATA IMPROVEMENT

OUR CHALLENGE

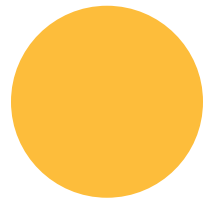
Improve the data and information systems that support the Strategic Highway Safety Plan. Today's safety information systems are managed through various methods, ranging from labor-intensive legacy systems to advanced automated electronic systems for data collection, processing, and reporting. Our challenges include evaluating and determining the most efficient and effective method for each information system to collect, process, and distribute data. In addition, we must assess and allocate the required resources that will sustain and manage these information systems.

OUR GOAL

Make the data accurate, reliable, accessible, and linkable. Improve data collection and information systems by leveraging new technologies to provide increased functionality to expedite capture, exchange, storage, and reporting.



OUR FOCUS STRATEGIES



Implement electronic collection and submission of crash reports at the state and local levels as envisioned by the Crash Records Management System (CRMS).

The CRMS project is a collaboration of efforts among federal, state, local, and private agencies to expedite crash data capture, exchange, storage, and reporting. The objective is to ensure efficient, timely, consistent, and streamlined capturing of crash data to allow sharing of the information among all concerned parties for effective analysis and reporting. Anticipated implementation of this project is summer 2012.

Improve state and local roadway inventory data through the adoption of Federal Highway's Model Inventory Roadway Elements (MIRE).

Safety data sets are a key element to sound decisions on the design and operation of roadways. The MIRE is a recommended list of roadway inventory and traffic elements critical to safety management. It provides a structure for data elements by using common, consistent definitions and attributes, which are essential for making sense of aggregated data.

Conduct an evaluation of the state of current data systems and needs. In coordination with other subcommittees, identify gaps between existing performance and desired performance.

Data systems transform data into decision-making knowledge. Accurate, complete, and reliable data are essential to making sound decisions.



OUR CONTINUING STRATEGIES

- Identify champions for each data system.
- Identify performance measures, set targets, and track performance.
- Re-establish the CODES (Crash Outcome Data Evaluation Systems) to identify prevention factors by linking crash, vehicle, and behavior characteristics to their specific medical and financial outcomes.



PERFORMANCE MEASURES

The following performance measures are tools to monitor the progress and success of the Strategic Highway Safety Plan. By utilizing the leading indicators as key performance measures, the New Hampshire Toward Zero Deaths Coalition is targeting outcomes that have proved most successful in reducing the number of roadway crashes that result in serious injuries and fatalities.

The lagging indicators presented below are a broader measure for the overall performance of the SHSP. Hence, the successful implementation of the leading indicators (cause) should positively impact the success of the lagging indicators (effect).

Leading Indicators

- Increase in the percentage of occupant seat belt use.
- Increase in the percentage of motorcycle helmet use.
- Model performance measures for state traffic records systems.
- Increase in the number of electronically submitted crash reports.
- Increase in the number of curves receiving safety enhancements.
- Increase the number of miles of median protection.
- Increase the number of state and local police utilizing E-Ticketing system.
- Enhance existing safety laws (Graduated Drivers License, impaired driving, child restraints, cell phone usage.)
- Access the number of road safety audits with implemented counter measures.
- Increase the number of DUI checkpoints and DRE patrols.

Lagging Indicators

- Number of traffic fatalities (five-year average).
- Number of severe injuries.
- Number of fatalities per vehicle mile travelled.
- Number of unrestrained vehicle occupant fatalities.
- Number of fatalities in crashes involving an impaired driver.
- Number of fatalities in crashes involving distracted drivers.
- Number of speeding-related fatalities.
- Number of un-helmeted motorcyclist fatalities.
- Number of drivers 20 years old or younger involved in fatal crashes.
- Number of drivers 65 years old or older involved in fatal crashes.
- Location of the last drink for those arrested for DUI.

Annually, each sub-committee will measure, study, report, and adjust the performance measures specific to each critical emphasis area.



PERFORMANCE MEASURES

IMPLEMENTATION

A significant challenge for the implementation and success of this plan is to ensure both public and private stakeholders remain engaged in the process and continue to champion the programs, projects, and initiatives outlined in the Strategic Highway Safety Plan. The State of New Hampshire is committed to implementing the SHSP by mobilizing agency resources to support the initiatives outlined in this plan through all available channels of community outreach.

EVALUATION

The Strategic Highway Safety Plan will be evaluated annually to review all critical emphasis areas, strategies, and performance measures. During this review, each sub-committee will develop actionable steps for the following year and will make this report available to the general public. The purpose of this review will be to analyze the preceding year's data, re-evaluate performance measures, and ensure established benchmarks are met. The SHSP will undergo a complete review and revision every four years.

Evaluation Focus Areas:

- Assess progress in each Critical Emphasis Area Action Plan.
- Assess progress made by stakeholders and level of collaboration among stakeholders, and ensure minimal overlap of efforts.
- Assess progress of aligning with mission, vision and goals of SHSP.
- Assess appropriate use of available funding.
- Assess integration with other plans.



CONCLUSION

Saving lives.

It is a simple concept and what the Strategic Highway Safety Plan is all about. The strong leadership and collaboration that have ensured the successful development of this plan will continue as each stakeholder takes responsibility for extending the reach of the plan and the strategies contained within it, until every person using New Hampshire roadways shares in the vision of Driving Toward Zero Deaths.

Remember, it is the only goal we all can live with.

New Hampshire Driving Toward Zero Deaths Coalition Members

- 3m Company
- AAA
- Brain Injury Association of New Hampshire
- Children's Hospital at Dartmouth
- City of Manchester
- Dartmouth-Hitchcock Trauma Program
- Federal Highway Administration
- Federal Motor Carrier Safety Administration
- Jacobs Engineering
- Manchester Community College
- Nashua Regional Planning Commission
- National Highway Traffic Safety Administration
- New Hampshire Department of Health and Human Services
- Department of Justice-Office of the Attorney General
- New Hampshire Department of Safety
- New Hampshire Department of Transportation
- New Hampshire Highway Safety Agency
- New Hampshire State Liquor Commission
- Traffic Records Coordinating Committee
- Upper Valley/Lake Sunapee Regional Planning Commission
- Vanasse Hangen Brustlin, Inc.
- Victims Inc.

APPENDIX

ADDITIONAL STRATEGIES AND GUIDANCE REFERENCE

Countermeasures That Work

Highway Safety Manual

NCHRP Report 500 Series:

- Volume 01: A Guide for Addressing Aggressive-Driving Collisions
- Volume 02: A Guide for Addressing Collisions Involving Unlicensed Drivers and Drivers with Suspended or Revoked Licenses
- Volume 03: A Guide for Addressing Collisions with Trees in Hazardous Locations
- Volume 04: A Guide for Addressing Head-On Collisions
- Volume 05: A Guide for Addressing Un-signalized Intersection Collisions
- Volume 06: A Guide for Addressing Run-Off-Road Collisions
- Volume 07: A Guide for Reducing Collisions on Horizontal Curves
- Volume 08: A Guide for Reducing Collisions Involving Utility Poles
- Volume 09: A Guide for Reducing Collisions Involving Older Drivers
- Volume 10: A Guide for Reducing Collisions Involving Pedestrians
- Volume 11: A Guide for Increasing Seat Belt Use
- Volume 12: A Guide for Reducing Collisions at Signalized Intersections
- Volume 13: A Guide for Reducing Collisions Involving Heavy Trucks
- Volume 14: Reducing Crashes Involving Drowsy and Distracted Drivers
- Volume 15: A Guide for Enhancing Rural Emergency Medical Services
- Volume 16: A Guide for Reducing Crashes Involving Alcohol
- Volume 17: A Guide for Reducing Work Zone Collisions
- Volume 19: A Guide for Collecting and Analyzing Safety Highway Safety Data
- Volume 20: A Guide for Reducing Head-On Crashes on Freeways

View a Site Map of all the Implementation Guides

The cost estimate for a fatality is established by the Federal Highway Administration (FHWA). Lesser injury type costs are not established by FHWA. An estimate was made consistent with research of other states' cost estimates. Cost estimates are fatality; \$5,800,000, serious injury (incapacitating); \$402,000, non-incapacitating; \$80,000, possible injury; \$42,000, property damage only; \$4,000.

U.S. Department of Transportation. (2008). *Revised Departmental Guidance: Treatment of the Value of Preventing Fatalities and Injuries in Preparing Economic Analyses*, Washington, DC. Accessed online: March 1, 2011. <http://ostpxweb.dot.gov/policy/reports/080205.htm>

DRIVING
TOWARD
ZERO

One Death Is Too Many

EXIT 5
Granite St
W. Manchester ↗
EXIT ONLY

New Hampshire
DOT
Department of Transportation

New Hampshire Department of Transportation
7 Hazen Drive, Concord, NH
603.271.3734

NHDrivingTowardZero.com
nh.gov/dot