OUR VISION

“All Hawaii’s road users arrive safely at their destinations.”

OUR MISSION

“Save lives and reduce injuries on Hawaii’s roadways through strategic partnerships and implementation of the SHSP.”

OUR GOAL

“Working together, we will reduce yearly fatalities from 100 to 80 or fewer by 2018, toward the ultimate goal of zero deaths.”
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Introduction and Overview

A National Concern

Highway safety is a national concern recognized by the federal government, all 50 states and countless local agencies and community organizations across the United States.

In August 2005, President Bush signed into law the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which required each state to develop and implement a Strategic Highway Safety Plan (SHSP). In July 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century (MAP-21) Act. This current Act establishes additional requirements for SHSPs.
A Statewide Effort

In July 2007, Hawaii officially unveiled its SHSP for 2007-2012. This five-year plan was a result of collaboration of more than 150 traffic safety, public safety and public health experts from government and community agencies statewide, including the Hawaii Department of Transportation, Hawaii Department of Health, Federal Highway Administration and the four county police departments.

Since its launch, the Hawaii SHSP and its strategies have directly and indirectly guided state, county and community organizations in their efforts to address traffic-related issues. Strategies and projects such as high visibility enforcement and media campaigns; infrastructure safety improvements; expansion of motorcycle training sites; and passage of the Universal Seat Belt, Ignition Interlock, and Electronic Mobile Device laws have likely contributed to a reduction in traffic deaths and serious injuries.

As the original five-year plan came to a close in 2012, the Core Committee, which was established with the 2007-2012 SHSP to provide primary guidance and input; monitor progress; and complete the plan, looked to update the SHSP for the next five years (2013-2018). After a review of local traffic safety data and the existing seven Emphasis Areas (EA), the committee decided to keep the EAs and add First Responder Capabilities as an eighth EA since these personnel are viewed as a vital part of traffic safety and are usually the first people to arrive at the scene of a crash.
The updated SHSP Emphasis Areas are:

- Speeding (formerly Aggressive Driving)
- Combating Impaired Driving
- Protecting Vehicle Occupants
- Safeguarding Pedestrians and Bicyclists
- Motorcycle, Scooter and Moped Safety
- Roadway Design
- First Responder Capabilities
- Improving Data and Safety Management Systems

In addition, distracted driving has been deemed by the Core Committee as an “area of interest,” and related strategies have been incorporated into the various EAs.

Throughout the update process, the Core Committee has been instrumental in coordinating all of the statewide meetings, following up with revisions of the plan and finalizing strategies.

Deaths from Motor Vehicle Crashes in Hawaii, by Mode, 2003-2012

Overall totals decreased from 154/year from 2003-2007 to 120/year from 2008-2012, a 22% decrease.

Source: Fatality Analysis Reporting System (FARS)
Beginning in late 2012, meetings were held for each of the various EAs to discuss existing and new strategies, and to see if any needed to be revised, deleted and/or added.

To aid with organizing EA meetings and to be fiscally responsible, the Core Committee used existing traffic safety group meetings whenever possible, such as the Hawaii Traffic Records Coordinating Committee for Data and Safety Management Systems; Walk Wise Hawaii for Pedestrians and Bicyclists; Statewide Child Passenger Safety Task Force for Occupant Protection; and the Traffic Commanders for Motorcycle Safety, Impaired Driving and Speeding. Whenever possible, the Core Committee also developed online surveys to query EA members on strategies selection and feedback.

This plan continues to provide the framework for strategic and performance goals that address traffic safety, behavior and infrastructure on public roads. Each strategy is part of a multi-faceted solution envisioned by the stakeholders to improve traffic safety in Hawaii, and will help decision makers, engineers, planners, safety partners and the public identify the important steps that must be taken. Most importantly, cooperation and partnerships between agencies and coalitions will be required to achieve the common goal of reducing injuries and saving lives on Hawaii’s roadways.
Reorganize SHSP Core Committee

Establish New Emphasis Area Chairs

Establish New Vision, Mission & Goal

Update Strategy Action Template

Organize & Conduct Emphasis Area Workgroup Meetings

Consolidate & Finalize Emphasis Area Strategies

Develop 2013-2018 SHSP Document

Governor Approval

Publish & Distribute 2013-2018 SHSP

Reconfirm Existing Emphasis Areas

Establish New Emphasis Areas

Reestablish Statewide Safety Workgroup Partners

Develop Strategy Selection Process

SHSP Update Process
Hawaii set a higher bar and reached a new level of traffic safety with the development and implementation of the 2007-2012 Hawaii Strategic Highway Safety Plan (SHSP).

Using the SHSP as a guide, federal, state and county agencies, along with community organizations, aligned their infrastructure and non-infrastructure projects with strategies within the SHSP, in an effort to streamline traffic safety improvements.

More importantly, the SHSP serves to build partnerships within our communities. With these partnerships and collaborations, Hawaii has come together, unified in our common goal of saving lives and reducing serious injuries.

There is much more to be done, but a look at some of the key accomplishments from the 2007-2012 SHSP demonstrates that we are on the right track and headed in the right direction.

- Implemented the Ignition Interlock Program in 2011
- Implemented Driving While Impaired (DWI) Court pilot program
- Reduced the number of dismissed cases through improvement in Administrative Driver’s License Revocation Office (ADLRO) communication and processes
- Expanded Drug Recognition Expert (DRE) program to all counties, and improved communications and processes amongst key stakeholders
- Implemented Mothers Against Drunk Driving (MADD) Power of Parents program
- Established a statewide Impaired Driving Task Force and created a strategic plan
- Screening, Brief Intervention, Referral to Treatment (SBIRT) implemented in all four counties
- Enacted Universal Seat Belt Law
- Hawaii Fire Department trained as Child Passenger Safety (CPS) technicians and fire stations established as child passenger restraint inspection stations
Established Occupant Protection/Child Passenger Safety (CPS) Task Force that meets monthly

- Trained CPS teachers in the Judiciary to be CPS technicians
- All four county police departments conduct nighttime enforcement of Hawaii’s seat belt and child restraint laws
- Created and implemented new booster seat media campaign to promote Hawaii’s booster seat law
- Enacted Hawaii Complete Streets law
- Systematic upgrade of pedestrian signals with countdown timers
- Developed the nationally awarded Hawaii Pedestrian Master Plan

- Continued growth of the nationally awarded Walk Wise Hawaii Coalition
- Beginning in 2010, August is proclaimed as Pedestrian Safety Month in Hawaii, the only Pedestrian Safety Month in the nation
- Enacted legislation that established the fine-based Safe Routes to School (SRTS) program special fund, which will support county-level SRTS programs
- Expanded bicycle education program to colleges and neighbor islands
- Established certified training facilities in all four counties
- Implemented new public information programs to encourage safe riding and safe driving habits

- Projects developed by the Highway Safety Improvement Program (HSIP) officially designated as a high priority by HDOT
- “Flexing” of HSIP funds to non-infrastructure projects identified in the SHSP starting in 2008
- Installation of milled rumble strips and SafetyEdge institutionalized into the project development process of HDOT
- Used crash data to identify high-risk locations
- Revised the Motor Vehicle Accident Report (MVAR) to improve MMUCC compliance and implemented training and use of the form statewide in 2009
- Expanded DOH/EMS’ Computer Aided Dispatch (CAD) system statewide
- Completed DOH data linkage project, consolidating data from MVAR, EMS reports, and hospital records (project is continuing as MVARs are recorded and finalized in the HDOT Traffic Accident Reporting System)
- Implemented Maui Police Department’s (MPD) MVAR electronic transfer pilot project
- Implemented Hawaii Police Department pilot project to collect GPS information on the MVAR
- Data Diagramming improvements implemented by police departments
There is no doubt that speeding on Hawaii’s roads continues to contribute to traffic deaths and injuries.

- From 2008 to 2012, speeding was a leading contributing factor among drivers involved in fatal motor vehicle-related crashes.
- Drivers involved in speeding-related fatalities were also likely to have tested positive for alcohol (66 percent) or drugs (51 percent).
- From 2008 to 2012, speeding was a common factor in fatalities among all four counties – Hawaii (52 percent), Oahu (49 percent), Kauai (47 percent) and Maui (47 percent).

### Motorcycle, Scooters and Moped Fatalities

- From 2007 to 2010, speeding was the most common contributing factor among all drivers (18 percent motorcycle, 14 percent moped).

### Other Road Users

- From 2007 to 2010, speeding was a contributing factor in 18 percent of fatal pedestrian crashes and 18 percent of fatal bicycle crashes.

A strong, multi-faceted approach utilizing enforcement, education and legislation is necessary to reduce the number of injuries and deaths resulting from speed-related crashes. Enacting legislation that would enable the use of automated enforcement can supplement speed enforcement efforts. In addition, public education must reach a greater audience to promote voluntary compliance.

### Percentage of Deaths Related to Speeding, Hawaii vs. U.S. (# of Fatalities), 2003-2012

Source: Fatality Analysis Reporting System (FARS)
**Legislation & Funding**
- Enact legislation enabling counties to implement a photo enforcement program.
- Enact legislation that earmarks traffic citation fines to the counties specifically for traffic enforcement.
- Continue to seek local and federal support for anti-speeding enforcement programs.
- Reexamine existing reckless driving and speeding laws to improve conviction rate and effectiveness of penalties.

**Education & Community Action**
- Continue to improve effectiveness of the Hawaii Graduated Driver License (GDL) Program.
- Research and apply best practices conducive to Hawaii (e.g., impoundment, immobilization, etc.).
- Provide specialized training to government agencies involved with addressing speeding issues (e.g., law enforcement).
- Develop aggressive driving programs.
- Develop and implement media campaigns, public service announcements and public education initiatives that address speeding and aggressive driving.

**Enforcement & Adjudication**
- Increase conviction rate by improving witness attendance for speeding cases.

**Engineering**
- Evaluate and/or implement road safety design elements and infrastructure to reduce speeding and speed-related crashes (e.g., speed limits, milled rumble strips, speed feedback signs, intelligent transportation system technologies, etc.).

**Data Needs**
- Conduct studies to identify ways to address speeding.
- Use timely crash data to identify high-risk locations in order to direct resources in enforcement, education and engineering.
Impaired Driving continues to be a key Emphasis Area (EA) in the Hawaii Strategic Highway Safety Plan (SHSP) since alcohol and drugged driving are associated with more than half of all fatal crashes in Hawaii. Even more tragic is the knowledge that these deaths were preventable.

Over the past five years, key stakeholders in Hawaii have come together to reduce impaired driving, by adapting and implementing evidence-based strategies such as the Ignition Interlock Program, a pilot Driving While Impaired (DWI) Court, and screening and brief intervention programs within trauma centers.

Since the enactment of the Ignition Interlock Program in 2011, interlock devices have been installed in vehicles of impaired driving offenders and have successfully prevented 14,861 impaired driving occurrences in Hawaii.

Hawaii’s federally funded DWI Court program works through Hawaii’s largest district court, offering monitoring and treatment to convicted repeat offenders as part of a support and accountability system. Through comprehensive supervision, the DWI Court program strives to reduce repeat offenses among high-risk offenders.

Hawaii’s trauma hospitals have also stepped up to combat the recurrence of impaired driving by implementing screening and brief intervention programs in trauma centers across the state. When patients are injured as a result of substance misuse or impaired driving, medical staff use screening and brief intervention methods to guide patients toward reducing or eliminating risky drinking or drug use behaviors.

These major accomplishments are the products of key partnerships, cooperation amongst stakeholders, dedication and perseverance.

However, there is much more work to be done. Hawaii continues to rank among the worst states in the nation in percentage of alcohol-impaired traffic fatalities. In 2012, the National Highway Traffic Safety Administration (NHTSA) reported that 41 percent of fatalities in Hawaii were alcohol impaired, versus the national average of 31 percent.

### Percentage of Alcohol-Related Fatalities by Driver Characteristics, 2008-2012

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tested, Positive</th>
<th>Tested, Negative</th>
<th>Not Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>no restraint/helmet (%)</td>
<td>68</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>single vehicle crash (%)</td>
<td>62</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td>speeding (%)</td>
<td>66</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>previous DUI conviction (%)</td>
<td>68</td>
<td>21</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Fatality Analysis Reporting System (FARS)
Drug-related fatalities by county and substance use status of drivers, 2008-2012

Source: Fatality Analysis Reporting System (FARS)

Drug-impaired driving is also a growing problem on our roadways:

- A 2007 National Survey of Alcohol and Drug Use by Drivers found that drugs were present more than seven times as frequently as alcohol among weekend nighttime drivers in the U.S., with 16 percent testing positive for drugs, compared to two percent testing at or above the legal limit for alcohol.

- According to NHTSA, 3,710 out of 27,491 fatally injured drivers (13 percent) tested positive for drugs in 2005, while 3,952 out of 21,798 fatally injured drivers (18 percent) tested positive for drugs in 2009.

- In Hawaii in 2009, 25 fatally injured drivers out of a total of 74 (34 percent) tested positive for drugs.

To address these alcohol- and drugged-driving problems, the Hawaii SHSP has included strategies and efforts such as increasing the legal consequences of driving while a person’s license is revoked or suspended for drunk driving; providing specialized training for law enforcement officers, prosecutors and other personnel; and supporting the expansion of alcohol intervention programs like Screening, Brief Intervention, Referral to Treatment.
Legislation & Funding
- Enhance Ignition Interlock law.
- Increase penalties for driving while license revoked/suspended due to Operating A Vehicle Under the Influence of an Intoxicant (OVUII).
- Improve procedures for obtaining convictions for driving while license revoked/suspended due to OVUII.
- Support needed improvements in order to successfully continue pilot DWI Court Program.
- Identify and utilize current and new funding sources for alcohol- and drug-abuse programs.
- Research a process to provide funding to county law enforcement and substance abuse prevention and treatment programs.
- Provide support for a statewide Impaired Driving Task Force.

Education & Community Action
- Develop programs and continue to support best practices to educate young drivers, families and at-risk groups that emphasize the practice of model behavior to deter drunk driving, speeding and non-seat belt use.
- Continue to provide training to the community, including medical staff, emergency medical services technicians, teachers and driver’s education instructors to recognize alcohol and other drug impairment.
- Expand reach and uniformity of server training program.
- Increase effectiveness through publicizing, providing training and enforcing the Use & Lose law.
- Encourage automobile dealerships and insurance companies to distribute materials on impaired driving. In addition, encourage County Department of Motor Vehicles to run educational videos directed at customers waiting in line.
- Research and apply best practices conducive to Hawaii (e.g., impoundment, immobilization, etc.).

Enforcement, Adjudication & Treatment
- Enhance conviction rate by improving witness attendance in OVUII cases.
- Continue to encourage compliance of mandatory blood draw law.

Alcohol-Related Fatalities by County and Substance Use Status of Drivers, 2008-2012

![Image of bar chart showing alcohol-related fatalities by county and substance use status of drivers from 2008 to 2012.]

Source: Fatality Analysis Reporting System (FARS)
- Increase conviction rate by reducing refusals.
- Improve Administrative Driver License Revocation Office documentation and communication.
- Continue high visibility sobriety checkpoints and media campaigns.
- Support statewide court monitoring program to provide data on DUI trial results.
- Continue compliance checks to include "off premise" locations such as small liquor stores and convenience outlets.
- Enhance compliance of interlock law by providing basic interlock training to enforcement officers so that they can detect non-compliance.
- Explore solutions to current barriers to OVUII drug prosecution.
- Increase effectiveness of OVUII laws by including probation as an allowable sentence.
- Support expansion of alcohol intervention programs, such as Screening, Brief Intervention, Referral to Treatment (SBIRT).

**Engineering**

- Continue to install milled rumble strips at centerline and roadway shoulders because drinking and driving can cause drowsiness, especially in rural areas where long distances are a factor.
Airbags and the use of seat belts offer the most effective means of protection for vehicle occupants. Research has found that when used, seat belts reduce the risk of fatal injuries by 45 percent and the risk of critical injuries by 50 percent.

In 2005, safety belt use nationwide reached 82 percent and approximately 15,000 lives were saved. Hawaii’s usage rate for that year was 95.3 percent. In 2009, Hawaii reached an all-time high of 97.9 percent—the highest safety belt usage rate in the nation. However, despite Hawaii’s success in achieving high usage rates, more than 50 percent of vehicle occupants killed annually were not wearing seat belts at the time of the crash.

**Hawaii’s seat belt use has steadily grown over the last 30 years:**

- Prior to the implementation of the seat belt law in 1985, seat belt use was only 33 percent.
- Through the 1990’s Hawaii maintained a usage rate between 80 and 85 percent.
- Due to the Click It Or Ticket enforcement and media campaign in 2003, the usage rate jumped to 91.8 percent.
- The usage rate continued to rise and in 2009 peaked at 97.9 percent.

(2000-current) In the last five years we have been consistently the top five in the nation in the usage of seat belts. In 2013, the observed usage rate dropped to 94 percent. This drop is probably due to the implementation of changes in the observation studies.

Car seats, when correctly installed and used, are extremely effective in saving children’s lives, reducing the risk of death by as much as 71 percent for infants. However, statewide safety programs estimate that more than 90 percent of all car seats in use are improperly installed. In Hawaii’s 2013 Child Restraint Use Survey, the observed usage rate was 90 percent for infants and 80.3 percent for toddlers (overall 81.56 percent). In 2007, the car seat usage rate in Hawaii was 70.38 percent.

Hawaii has a Universal Seat Belt law (passed in May 2013) that requires all vehicle occupants to wear a safety belt. This strong law in combination with the successful Click It Or Ticket campaign and the involvement of other agencies and community partners will someday soon lead to 100 percent compliance of our laws and attain zero traffic fatalities.

**Legislation & Funding**

- Support legislation to ban passengers from riding in the back of pick-up trucks.
- Support Universal Seat Belt law.
- Enhance penalties, including community service, for repeat offenders of seat belt and child passenger safety laws.
- Obtain permanent funding to maintain and expand the number of child safety seat inspection stations statewide.
- Provide immunity from liability for child safety seat instructors and technicians.
- Support legislation to create an Occupant Protection Program, funded through a surcharge on traffic citations.
- Lobby to include negligence in seat belt and child passenger safety laws.
- Increase the current tax credit for child safety seats or the number of credits for families with more than one child.
- Amend seat belt and child passenger safety laws to require that children under 13 years of age ride in back seat.
- Provide resources for child passenger safety initiatives.
Education & Community Action

- Continue to maintain a Child Passenger Safety (CPS) Coordinator in each county.
- Establish a Traffic Safety Coordinator position in each county.
- Increase child restraint and seat belt use through media, community activities, public outreach and education.
- Work with high schools to develop public service messages for students and collateral materials for use in school newsletters and newspapers.
- Develop a comprehensive educational campaign to include updating materials such as the police department occupant-protection roll call video and driver education curriculum.
- Include occupant-protection training as part of in-service training for all police officers and recruits.
- Improve and publicize central clearinghouse of occupant protection initiatives and events statewide.
- Continue support from the Department of Health through the Injury Prevention Program to keep traffic-related safety-injury prevention a public health priority.

- Develop a statewide occupant protection committee to meet regularly to ensure a comprehensive statewide program.
- Include items in Drivers License Exam on occupant protection in regards to restraint use and distracted driving.
- Maintain national certification of child passenger safety teachers in the Judiciary to meet national standards to ensure that the most current child passenger safety information is being taught.
- Continue to work closely with rental car agencies to distribute information about Hawaii’s seat belt and child passenger safety laws.
- Create point-of-entry signs to remind visitors about Hawaii’s occupant protection laws, with increased emphasis on child passenger safety.
- Add requirement of violator class to work at community event or child safety seat inspection.
- Educate older drivers about seat belt and child passenger safety laws.

Enforcement & Adjudication

- Continue support of law enforcement to continue their enforcement and education efforts, with emphasis on nighttime enforcement.

Data Needs

- Use survey results to overcome barriers to non-use of child safety seats and seat belts. Identify high-risk groups and target educational campaigns to these groups.
- Fund annual occupant protection surveys in cooperation with the four county police departments.
- Survey offenders to determine reasons for non-use of child safety seats and seat belts.
- Add an occupant protection question for the Department of Health’s Behavioral Risk Factor Surveillance System and the Department of Education’s Youth Risk Behavior Survey, and review data to assess changes.
- Conduct occupant protection assessment and support recommendations.
BACKGROUND

Pedestrians
There is an average of 24 pedestrian-related fatalities each year in Hawaii. Of those, from 2008-2012, almost half (43 percent) of the victims were 65 years of age or older. Of the fatalities occurring between 2007 and 2010, 34 percent of the victims were in crosswalks and an almost equal amount was hit on open stretches of roadway. On average, there were 565 non-fatal injuries among pedestrians from 2008-2012. Non-fatal injuries occur more frequently (32 percent) among pedestrians ages 5-24 years old. Alcohol use is more likely a factor among younger pedestrians who are struck and those who are hit during night time hours.

Bicyclists
Since the inauguration of the Hawaii Strategic Highway Safety Plan in 2007, Hawaii went from having the second highest bicycle fatality rate in the U.S. (4.5 per 1 million residents) to a rate that is below the U.S. average in 2011 (U.S. average of 2.17 per 1 million residents vs. Hawaii’s 1.45 per 1 million residents). About 53 percent of injuries attended by EMS involved a motor vehicle. Unfortunately, only 2.1 percent of the bicyclists injured and attended to by EMS were wearing a helmet, and those in crashes involving motor vehicles had a higher proportion of “critical” or fatal injuries.

Hawaii has made huge strides in implementing many of the top priority strategies of the previous Strategic Highway Safety Plan. Continued implementation of the updated plan’s strategies will help us move forward in reducing injuries and fatalities among pedestrians and bicyclists.

Major accomplishments from the 2007-2012 SHSP include:
- Improvements in providing data in relation to injury location;
- Enactment of Hawaii’s Complete Streets Act in 2009;
- Continuous pedestrian enforcement;
- Large-scale pedestrian safety awareness campaigns; and
- Bicycle safety skills courses for youth and adults.

The focus of this updated plan for the Pedestrian and Bicycle Safety EA include:
- Improving the visibility of pedestrians and bicyclists;
- Continuous implementation of skills courses and locally developed prevention messages;
- Integration of safe roadway designs inclusive of all users into our transportation network;
- Increasing the use of safety gear (helmets, lights, reflectors) and the promotion of safe traveling behaviors; and
- Continuous enforcement of distracted driving, pedestrian- and bicycle-related laws.
STRATEGIES

Legislation & Funding
- Provide internal agency support at state and county levels to fill/create positions that will expedite pedestrian and bicycle infrastructure projects through the state and county transportation agencies.
- Revise and strengthen existing pedestrian and bicycle-related laws (e.g., Bicycle Helmet Law, clear definition of business districts in relation to riding on and off of sidewalks, etc.).
- Provide an equitable funding share for bicycle and pedestrian improvements, through federal, state and local sources (e.g., Safe Routes to School, federal safety grants, state appropriations, etc.).

Education & Community Action
- Develop and support campaigns to educate students and adults about their rights and responsibilities as pedestrians, bicyclists and motorists.
- Develop a coordinated culturally sensitive media campaign to promote the “Share with Aloha” spirit, to encourage safety and sharing the road with all users.
- Modify the driver’s license manual and test to include a major section on safety and the motorists’ responsibilities toward pedestrians and bicyclists.
- Develop positively oriented social marketing and media education campaigns to reinforce existing traffic laws for all users.
- Encourage transit use for bicyclists and pedestrians to safely bypass areas not designated for pedestrian or bicycle use.

Enforcement & Adjudication
- Enforce Hawaii’s Distracted Driving law. Support implementation and education toward all road users of the dangers of inattentive walking, bicycling and driving.
- Increase enforcement of existing pedestrian and bicycle-related laws.
- Implement innovative/advanced technology to reduce red-light running.

Engineering
- Increase the visibility of bicyclists, pedestrians and the facilities they use through the use of lighting, signage and advanced technology at intersections and crosswalks, and modification of traffic control devices.

Data Needs
- Improve data collection systems to facilitate creation and dissemination of standardized data set that includes census, injuries and fatalities, to compute more accurate measure of risk for all transportation modes.

Planning & Land Use
- Incorporate “Complete Streets” policies into land use planning and development policies and practices.
- Update zoning codes and street design standards to support best practices for pedestrian and bicycle facilities and safety.
- Identify and prioritize bicycle and pedestrian facilities requiring upgrades and improvements in accordance with Bike Plan Hawaii 2003, Hawaii Pedestrian Master Plan 2013, and AASHTO guidelines, and continue phased implementation.
- Continue updates of state and county pedestrian and bicycle plans.
Motorcycle, scooter and moped safety continues to be a major priority in Hawaii as the number of registered motorcycles and scooters continues to grow and the number of motorcycle, scooter and moped fatalities in the state remains high.

From 2008 to 2012, motorcycles and scooters represented only 3-5 percent of all registered vehicles in Hawaii, and yet, they represented an average of 22 percent of all fatalities.

During that same time period, half of all motorcycle, scooter and moped fatalities occurred on Oahu (51 percent), while the other half occurred on the neighbor islands (49 percent).

In developing strategies for this updated Strategic Highway Safety Plan (SHSP), the Motorcycle, Scooter and Moped Safety Emphasis Area team also considered the following statistics:

- Looking at only motorcycle-related fatalities from 2008 to 2011, 45 percent were alcohol related and 64 percent were speed related.
- From 2008 to 2012, of the 135 motorcycle deaths in Hawaii, 57 percent were not licensed to operate a motorcycle, 38 percent held a license but not a motorcycle designation, and 7 percent had no license at all.

### Safety Training

Since mid-2007, there have been no state-authorized motorcycle safety training classes available on the neighbor islands, which limited the number of riders trained to safely operate motorcycles. In fact, from 2008 to 2011, 45 percent of motorcycle crashes were single-vehicle crashes. In addition, of the total number of motorcycle-, moped- and ATV-related fatalities, 51 percent were going straight. Motorcycle-specific statistics also highlight the need to offer more rider training; 46 percent of motorcyclist fatalities were going straight, 41 percent were negotiating a curve, and 7 percent were passing/overtaking another vehicle.

The lack of motorcycle safety training classes also resulted in motorcyclists riding without the proper motorcycle endorsements. However, with the aid of federal grants from the National Highway Traffic Safety Administration, the Leeward Community College was able to expand motorcycle training to the neighbor islands, with classes being offered on Maui, Kauai and Hawaii island.

### Helmets

On June 4, 1967, Hawaii enacted a universal helmet law that required all riders to wear a helmet. However, that law was repealed on June 7, 1977, and currently, Hawaii’s law requires motorcycle riders under the age of 18 to wear a helmet. A review of motorcycle-related fatality data indicates that while the universal helmet law was in place, Hawaii experienced the lowest amount of motorcycle deaths. After the repeal of the law, fatalities rose.

During the years 2008 to 2012, only 46 of the 157 motorcycle, scooter and moped drivers that died were wearing helmets – a 29 percent usage rate. According to NHTSA, from 2008 to 2012, an average
Legislation & Funding

- Enact a Universal Helmet Law
- Review and update/revise motorcycle-, motor scooter- and moped-related laws to improve clarity, consistency and efficiency of defining, regulating, testing and training for all two- and three-wheeled motor vehicles.
- Provide increased funding for motorcycle, motor scooter and moped safety programs.
- Make training mandatory prior to getting a motorcycle, motor scooter or moped license.
- Direct fines/penalties and fees toward education programs.
- Identify and fix gaps in existing laws that support proper licensing, education and insurance of motorcycles, motor scooters and mopeds.
- Require registration of mopeds as their own class, as well as safety check and insurance, on an annual basis.

Education & Community Action

- Develop public information programs that focus on drivers, as well as riders (e.g., helmet use, alcohol, speeding, etc.).
- Create a motorcycle, motor scooter and moped safety clearinghouse website to increase access to information and spread awareness.
- Develop Motorcycle Safety Task Force to implement strategies such as tiered licensing, etc.
- Implement effective strategies identified in new and upcoming studies/findings.

Enforcement & Adjudication

- Identify new technology and techniques that can improve enforcement of speeding motorcycles, motor scooters and mopeds.
- Provide training for enforcement on all aspects of motorcycle, motor scooter and moped safety.

Engineering

- Plan, design and maintain roadways with motorcycle, motor scooter and moped safety in mind (e.g., incorporate into “Complete Streets” policies, traffic calming, etc.).

Data Needs

- Improve data for motorcycle-, motor scooter- and moped-specific crashes in order to identify key areas for prioritizing resources.

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Percentage of Fatal Crashes Involving Motorcycle, Scooter and Moped Drivers, by Driver Characteristics, 2008-2012

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
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<tbody>
<tr>
<td>Not Wearing a Helmet</td>
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<td>45%</td>
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<td>Alcohol Related</td>
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<td>Tested Positive for Illicit Drugs</td>
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<td>22%</td>
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Source: Fatality Analysis Reporting System (FARS)

...of nine additional lives per year could have been saved in Hawaii if helmets had been used.

The use of helmets is also attributed to reducing the odds of traumatic brain injury and paralysis. In the Hawaii Department of Health’s recently released report, “Injuries in Hawaii 2007-2011,” the odds of traumatic brain injury for moped and motorcyclists are 17.9 percent when helmeted but 31.2 percent for those that are not helmeted. For motorcyclists alone, 16.7 percent are at risk for traumatic brain injury when helmeted, but that number increases to 34.8 percent when riders are unhelmeted.

In addition, those who choose not to wear helmets represent the highest cost to the public.

Increased helmet usage, safe rider education and public awareness for riders and drivers are all a large part of reducing motorcycle, scooter and moped deaths. With the increase in ridership every year, motorcycle, scooter and moped safety will continue to be a focus for Hawaii.
Improving infrastructure is a key component in saving lives and reducing injuries; however, Hawaii’s roadway infrastructure has not kept up with our State’s population growth. Areas that were once designated as rural are now urban, with roadways carrying higher volumes than anticipated. As such, cost-effective facilities in our State must be planned to meet the needs of the traveling public while, at the same time, designed and built with a higher level of safety to reduce traffic fatalities and injuries.

Motor vehicle crashes generally occur on roadway segments or at intersections. Lane departures, the most common type of crash on roadway segments, either involve a vehicle running off the roadway or crossing the centerline, resulting in a head-on collision.

- From 2003 to 2007, prior to implementation of this Plan, run-off-road crashes comprised 45 percent of all fatal motor vehicle crashes in Hawaii, an average of 57 fatal crashes per year. From 2008 to 2012 that percentage decreased slightly to 44 percent.

- Head-on collisions comprised 11 percent of all fatal motor vehicle crashes in the State from 2003 to 2007, an average of 14 fatal crashes per year. During the next five years, 2008 to 2012, that percentage did not change.

- Crashes at intersections made up 23 percent of all fatal motor vehicle crashes in the State from 2003 to 2007, an average of 30 fatal crashes per year. From 2008 to 2012 that percentage increased to 27 percent.

Although impaired driving, speeding and failure to practice safe driver behavior were prevalent factors in almost all of the fatal motor vehicle crashes during these time periods, making the road more forgiving by applying proven, cost-effective infrastructure improvements can have a significant positive effect on saving lives and reducing injuries.
Legislation & Funding

- Develop a process to quickly resolve jurisdictional issues, as safety improvements cannot be undertaken where the road ownership is in limbo.

Enforcement & Adjudication

- Consult with police and other road users during project development, and design safe locations to enforce traffic laws.

Engineering

- Install milled rumble strips, or appropriate alternative, at centerline and roadway shoulders to alert inattentive and drowsy drivers who are straying into opposing traffic lanes or off the road.
- Reduce the possibility of hitting an object or overturning by installing high-friction surface treatments (HFST); designing safer slopes and ditches; removing or relocating objects in critical locations; and installing and/or upgrading safety hardware, according to the AASHTO Roadside Design Guide.
- Install signs that make it easier for older drivers to see and respond (e.g., retroreflective sheeting, new font styles, etc.), in accordance to MUTCD, AASHTO, etc.
- Install delineators and warning signs where the roadway alignment is confusing or unexpected, as appropriate.
- Install medians and other physical barriers to reduce head-on or crossover collisions, as appropriate.
- Continue to improve work zone safety, and accessibility through work zones, for all road users through public education, effective traffic control, improved safety hardware, and off-peak construction.
- Develop and implement programs for the timely repair and maintenance of safety hardware, light poles, pavement markings and signs.
- Incorporate designs that reduce conflicts, such as synchronized traffic signals, traffic calming, separate left-turn signals, one-way streets and turn pockets, as appropriate.
- Develop a streamlined process to accelerate delivery of local road projects.
- Implement state and county “Complete Streets” policies, with an emphasis on reducing speeds, promoting alternative modes of transport and improving driver behavior.
- Implement more low-cost safety countermeasures, such as Rectangular Rapid Flashing Beacon (RRFB), SafetyEdge, high-friction surface treatments, backplates with retroreflective borders, pedestrian countdown timers, etc., as appropriate.

Planning & Land Use

- Pursue on a priority basis projects identified in the Highway Safety Improvement Program (including High-Risk Rural Roads projects, as defined in current guidelines) for locations with known histories and incidents of crashes.
- Conduct Road Safety Audits or Assessments on roadway projects to identify additional safety improvements.
- Update and implement a coordinated transportation master plan that emphasizes safety, accommodates all users and ensures adequate rights-of-way to support future growth.
- Adopt rights-of-way maintenance and management policies that maintain clear zones as designed.
First Responder Capabilities is a new Emphasis Area (EA) in the Hawaii Strategic Highway Safety Plan. The Steering and Core Committee agreed that it was important to incorporate this EA to better understand and support strategies that help improve first responder capabilities relating to traffic safety efforts.

First responders play a vital role in the area of traffic safety. Their ability to respond safely and efficiently to a crash scene, render appropriate care, and make critical patient transport decisions based on a system of care available, can make the difference in a patient’s survival. In addition, first responders are the gatekeepers to vital information and data as it relates to influencing factors of a crash. Response times, location of incident, timeliness of extrication efforts, as well as patient’s condition on arrival at scene, are all critical data elements captured by first responders. This data is not only essential for patient care but is also utilized to identify solutions in improving systems of care. In addition, first responder data also provides traffic safety partners a better understanding of the scope of traffic-related problems that directly result in traffic injuries. First responder data that is analyzed and shared can help facilitate efforts to improve first responder capabilities, help traffic safety partners understand where to focus preventative efforts, and ultimately improve patient outcomes related to traffic accidents.

The new First Responder Capabilities EA focuses on the following:

- Protecting first responders at the scene of a crash;
- Maintaining and acquiring new equipment that improve response times, patient extrication and patient care;
- Promoting first responder professions throughout the community;
- Expanding community outreach of traffic safety efforts through first responder contact; and
- Improving and utilizing Emergency Medical Services data and technology to improve systems of care, safety, communication and response times, as well as provide traffic-related data to appropriate traffic safety partners for evaluation and prevention efforts.
Legislation & Funding
- Fund injury prevention positions at the county level.

Education & Community Action
- Promote first responder-type careers in high schools and colleges.
- Continue community-level traffic safety programs (i.e., child safety seat inspection stations).
- Continue promotion of the “Move Over” law.
- Expand Voluntary Bystander Care Training Program to targeted communities and drivers.

First Responder Collaboration & Promotion
- Educate all levels and branches of government on both the scope of work and the ways to support first responders.
- Provide policy training for first responders to encourage engagement in legislative matters that address agency staffing issues and safety measures.

First Responder Capabilities
- Expand Computer Aided Dispatch (CAD) technologies to neighbor islands.
- Develop Emergency Preparedness model for identified high crash areas and potential high risk scenarios.
- Evaluate the use of lights and sirens in different environments (i.e., rural, urban, peak traffic time), and provide findings and recommendations to affected agencies and communities.
- Provide training, education, equipment and technologies to improve first responder capabilities for traffic-related crashes.
Significantly improving Hawaii's traffic data and developing an effective, comprehensive traffic safety information system is a high priority within the Strategic Highway Safety Plan (SHSP).

These are essential as we work towards our goal of zero traffic fatalities. Evidence from the Transportation Research Board, and other federal agencies, states and countries show that improvements in traffic data and integration of data systems contribute to the reduction of serious collisions, thereby decreasing the high costs – both human and financial – paid by the government, businesses and citizens.

To achieve a comprehensive traffic safety information system, we must adopt a coordinated management approach that integrates engineering, education, enforcement and emergency medical services components to address major crash problems. It is also crucial that the SHSP and roadway safety partners strive to improve timeliness, accuracy, completeness, uniformity, integration and accessibility in traffic-related data.
**Organizational**

- Establish executive-level TRCC to provide oversight support, resources and direction to all ongoing traffic records activities within Hawaii.
- Join state CIO effort to modernize information systems.
- Establish leadership toward long-term commitment to improve data and management systems, as well as understand the risks of failure to improve and the benefits of effective information and management systems.
- Strengthen the charter of the TRCC.
- Encourage the state to create a “data czar” who would have the authority over state and counties.
- Support the goals and priorities of the TRCC.

**Data Systems Improvements**

- Improve linkage and integration of data.
- Improve timeliness of crash reports and linkage of crash data.
- Improve existing processes to turn data into useful information for law enforcement and other safety partners.
- Develop a statewide electronic citation program to be managed by the state.
- Obtain funding needed to improve data and information flow, and develop an effective safety management system, including Traffic Records Coordinating Committee (TRCC).
- Coordinate data collection methods, and develop accessible traffic records databases.
- Improve data quality assurance process and training.
- Employ wireless communication and GPS technology to facilitate expeditious reporting and information input.
- Collaborate and learn from national and international data partners.
- Improve data and information to track, monitor and assess the progress in each of the other emphasis areas.
- Implement federal Traffic Records Assessment recommendations.
- Use crash data sources to identify high-risk locations in order to direct resources in enforcement, education and engineering, and make positive behavior changes.*
- Improve data collection systems to facilitate creation and dissemination of standardized data set that includes census, injuries and fatalities, to compute more accurate measure of risk for all transportation modes.*
- Improve data for motorcycle-, motor scooter- and moped-specific crashes in order to identify key areas for prioritizing resources.*
- Pursue on a priority basis projects identified in the Highway Safety Improvement Program (including High-Risk Rural Roads projects, as defined in current guidelines) for locations with known histories and incidents of crashes.*
- Expand Computer Aided Dispatch (CAD) technologies to neighbor islands.*
- Develop Emergency Preparedness model for identified high crash areas and potential high risk scenarios.*

* Strategies that are included in other Emphasis Areas.
The goal of this Strategic Highway Safety Plan (SHSP) is to reduce traffic-related deaths and injuries by providing guidance and direction to the many public agencies and community organizations that have a vested interest in highway safety.
In this plan, there are over 100 strategies with wide-ranging effects and a call to action on the state and county levels, as well as to the community groups involved in traffic-safety programs and initiatives. It is hoped that these strategies and data will serve as a guide when planning upcoming roadway and educational/safety projects.

The voluntary SHSP Core Committee will continue to meet regularly and act as a clearinghouse related to the plan, disseminating information to decision makers at all levels and overseeing implementation, monitoring and evaluation.

Making Hawaii’s roadways safer and reducing traffic-related deaths and injuries over the next five years will require a coordinated and sustained effort. We truly believe that by working together, we can make Hawaii safer for all roadway users.
The SHSP Core Committee would like to thank all of the traffic safety partners who contributed to this update of the Hawaii Strategic Highway Safety Plan. The participants contributed their time and knowledge to assist with developing strategies towards achieving our goal.

The committee would especially like to thank Dan Galanis, Injury Epidemiologist at the Hawaii State Department of Health (DOH), and Scott Haneberg, Motor Vehicle Safety Office Administrator at the Hawaii Department of Transportation (HDOT), for providing data support to each of the Emphasis Area (EA) work groups.

Our sincerest gratitude is extended to all individuals, agencies, companies and organizations listed below, as well as to the many other supporters of traffic safety and injury prevention.
Core Committee

Mitchell Roth, County of Hawaii Office of the Prosecuting Attorney – SHSP Core Committee Chair
Charles Hirata, Maui Child Passenger Safety (CPS) Instructor – Speeding EA Chair
Arkie Koehl, Mothers Against Drunk Driving (MADD) – Impaired Driving EA Co-Chair
Sharon Vitousek M.D., Health Outcomes LLC – Impaired Driving EA Co-Chair
John Kaizuka, Partners for Safe Keiki – Occupant Protection EA Chair
Kari Benes, DOH – Pedestrian & Bicycle EA Co-Chair
Laura Dierenfield, Peoples Advocacy for Trails Hawaii (PATH) – Pedestrian & Bicycle EA Co-Chair
Bill Labby, University of Hawaii (UH) Leeward Community College – Motorcycle, Scooter & Moped EA Co-Chair
David Marshall, Motorcycle Safety Advocate – Motorcycle, Scooter & Moped EA Co-Chair
Sean Hiraoka, HDOT – Roadway Design EA Co-Chair
Wayne Kaneshiro, Federal Highway Administration (FHWA) – Roadway Design EA Co-Chair
Lance Uchida, Hawaii Fire Department – First Responders EA Chair
Robert Lung, HDOT – Data & Safety Management Systems Chair
Christy Cowser, HDOT
Jan Higaki, HDOT
Karen Kahikina, HDOT
Norren Kato, HDOT
Tara Lucas, HDOT
Owen Miyamoto, UH Honolulu Community College
Benjamin Moszkowicz, Honolulu Police Department (HPD)
Lee Nagano, HDOT
Danton Nakama, HPD
Costas Papacostas, UH Department of Civil & Environmental Engineering
Lianne Yamamoto, HDOT
Data Committee

Dan Galanis, DOH
Scott Haneberg, HDOT

Traffic Safety Partners

3M
Administrative Driver’s License Revocation Office
American Institute of Architects Honolulu
American Medical Response
American Society of Civil Engineers, Hawaii Section
Belt Collins Hawaii
City & County of Honolulu (C&C) Department of Customer Services
C&C of Honolulu Department of Design & Construction
C&C of Honolulu Department of Information Technology
C&C of Honolulu Department of Planning & Permitting
C&C of Honolulu Department of the Prosecuting Attorney
C&C of Honolulu Department of Transportation Services
Clinical Laboratories of Hawaii
Cycle City
Department of the Attorney General
DOH
Evan Ching, Oahu CPS Instructor
Federal Motor Carrier Safety Administration
FHWA
GP Roadway Solutions
Hawaii Bicycling League
Hawaii County Department of Public Works
Hawaii County EMS
HDOT
Hawaii County Department of Liquor Control
Hawaii Fire Department
Hawaii Information Consortium
Hawaii Office of the Prosecuting Attorney
HPD
Hawaii State Department of Education
Hawaii State Judiciary
Hawaii Traffic Safety Council
Hawaii Transportation Association
Hawaii Trauma Advisory Council
Honolulu Emergency Medical Services (EMS) Department
Honolulu Fire Department
Honolulu Police Department
HPPUD (Hawaii Partnership to Prevent Underage Drinking)
Institute of Transportation Engineers Hawaii
Kaikor Construction Associates
Kaneohe Marine Corps Base Hawaii
Kapiolani Medical Center for Women and Children
Kauai County Department of Liquor Control
Kauai County EMS
Kauai Department of Public Works
Kauai Fire Department
Kauai Office of the Prosecuting Attorney
Kauai Police Department
Ke Ala Hele Makalae Committee
Keiki Injury Prevention Coalition
Leeward Oahu Transportation Management Association
MADD
Mark Scribner, Kauai CPS Instructor
Maui County Department of Liquor Control
Maui County EMS
Maui Department of Public Works
Maui Department of the Prosecuting Attorney
Maui Fire Department
Maui Police Department
Montgomery Motors Powersports
Oahu Metropolitan Planning Organization
PATH-Hawaii
PATH-Kauai
Representative Henry J.C. Aquino
Senator Will Espero
Smart Start
State Highway Safety Council
The Queen's Medical Center
TLC PR
UH Department of Civil & Environmental Engineering
UH Department of Psychiatry
UH Kauai Community College
UH Maui College
US Environmental Protection Agency
Walk Wise Hawaii Coalition
Addendum #1

After publication of this document, The Federal Highways Administration (FHWA) clarified the requirement that a definition for a High Risk Rural Road (HRRR) needs to be included in the State Strategic Highway Safety Plan. The following is Hawaii’s definition:

“A High Risk Rural Road is any roadway functionally classified as a rural major or minor collector or a rural local road with a fatality and serious injury crash rate higher than the average fatality and serious injury crash rate for those functional classifications of roadway.”