WASHINGTON
Traffic Safety
COMMISSION

PEDESTRIAN SAFETY ADVISORY COUNCIL

2017 Annual Report and Recommendations

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Table of Contents

Executive Summary

Nearly all Washingtonians walk on a daily basis and for about 25-30 percent of the state's population who do not drive, walking is a necessary means of transportation[1]. Pedestrians accounted for 15.6 percent of traffic fatalities between 2012 and 2016 [2] and 14.9 percent of serious injuries. (WSDOT Gray Notebook 65, 2017). We are currently not on target to reach zero pedestrian fatalities by 2030.

PSC Recommendations and Work Plan

As outlined in Substitute Senate Bill 5957 (SSB 5957), the Pedestrian Safety Advisory Council (PSC) is charged with making recommendations for improving pedestrian safety in the state.

New Data Considered in 2017

The PSC conducted detailed examinations of pedestrian fatality crash cases specific to common crash types including the following:

- Slow speed crashes;
- Intersection-related pedestrian fatalities;
- Impairment issues affecting either drivers or pedestrians; and,
- Roadway crossing-related fatalities.

Additionally, the group discussed local planners' concerns about liability exposure from prioritization of roadways for pedestrian safety action. The group examined multiple roadways to see the different ways local governments approach pedestrian safety improvements. The group began considering the ways that different populations (e.g., racial and ethnic groups, non-English speakers, persons with disabilities) experience pedestrian safety issues. Many PSC members participated in the King County Medical Examiners' traffic death review presentations to learn what happens when vehicles and pedestrians collide.

Key Findings

- Potential for pedestrian fatalities and serious injuries increase as vehicle impact speed increases. The speed at which traffic naturally flows can be lowered using features designed to make roads self-enforcing. Elderly pedestrians are at higher risk for fatal injury in slow-speed crashes.

[1] At this time, we do not know the actual extent of walking in Washington State beyond what the American Community Survey (United States Census) captures for commuting and so must rely on national estimates. Developing methodology for accurately estimating the number of pedestrians and the types of trips they take is vital for effective pedestrian safety planning.

[2] We will identify 2016 as the most recent year for which data is available throughout this report because it is the last year for which we have totally verified data. According to data available through the Quarterly Fatality Accident Reporting System (FARS) reporting, there were 44 pedestrian fatalities and 153 serious injuries through the first six months of 2017, compared with 36 fatalities and 163 serious injuries during the same period in 2016. This data is considered preliminary, as the official FARS system data is not yet available for 2017.

- Accurate investigation of impairment of those involved in the crash requires collection of evidence that dissipates quickly.
- Changing the culture (values and beliefs) of road users, transportation professionals, and stakeholders around traffic safety to shift the view of traffic crashes from inevitable to unacceptable is a promising approach.
- More work is needed to support Washington's distracted driver law.
- Investment in pedestrian facilities does not match need. The level of investment in preventing pedestrian fatalities and serious injuries is not consistent with the percentage of pedestrians in the state's fatality and serious injury data.
- Addressing human factors can help change people's behaviors in ways that will reduce pedestrian fatalities and serious injuries. As a 2015 NHTSA study on motor vehicle crash causation found, the critical factor in 94 percent of all collisions—not just those involving a pedestrian—is driver error, either recognition, decision, or performance error.
- Further mining of pedestrian crash and travel data is needed. There is currently no reliable way to determine how many people are walking – and for how far or how often.
- Local pedestrian walkway plans that prioritize future investments based on accumulated local data are an effective way to prevent future fatal and serious injury crashes.
- Efforts to improve pedestrian safety should address human and behavioral factors.
- Photo enforcement pilot projects have resulted in significant and lasting decreases in crashes involving pedestrians and speeding motorists.
- Roads that are shared by people driving, walking and bicycling can and should be designed to feature frequent protected opportunities to cross the road, separated facilities for each user group, and road characteristics that signal drivers to maintain lower speeds.
- Jurisdictions need to be able to make use of collision data to plan roadway design and enforcement without incurring liability when they seek to address specific locations and overall systematic safety.
- Pedestrian safety issues may be experienced in different ways by different populations (e.g., persons with disabilities, people for whom English is not a first language, older adults).

Identifying Recommendations

PSC members identified possible recommendations for improving pedestrian safety at the conclusion of each meeting. Those recommendations were then pared-down through a group decision-making process to produce the 23 recommendations that follow in this report.

Executive Summary: 2017 Recommendations

Based on these findings, the PSC has identified the following recommendations to improve pedestrian safety in Washington State:

Focus Area 1 - Explore laws, rules, and ordinances that support pedestrian safety.

Recommendations:	Legislative Action	Governor Action	Agency Lead
1.1 Work with local jurisdictions and other state agencies to develop a target speed policy and guidelines that emphasize lower speeds on state routes, city streets, county and tribal roads compatible with the needs of all users and, if considered necessary, recommend changes to legislation regarding statutory speed based on the target speed policy.			WSDOT
1.2 Remove barriers for obtaining a warrant for a timely blood draw from drivers involved in pedestrian crashes involving suspected pedestrian injury.	☑		
1.2.a. Provide funding support to Washington Technology Solutions (WaTech) to develop a statewide electronic warrant system that would allow a judge to authorize a timely blood warrant based on a review of documents received electronically.	☑		WaTech
1.2.b. Change Washington State law to require public hospitals and emergency rooms to prioritize blood draws related to criminal investigations (e.g. DUI) over non-emergent cases, and to bill the blood drawee's health insurance for associated costs.	☑		
1.2.c. Provide funding support for implementation of an effective law enforcement phlebotomy program where law enforcement officers draw blood from suspects in crimes.	☑		

Recommendations:	Legislative Action	Governor Action	Agency Lead
1.3 Change Washington State law to double penalties for drivers who are cited for any traffic offense associated with a crash in which a pedestrian is killed or seriously injured.	☑		
1.4 Create requirement for law enforcement, prosecutors and judges to be trained about Washington State's Vulnerable User law, RCW 46.61.526 (Negligent driving—Second degree—Vulnerable user victim), and how to apply it to instances where pedestrians and bicyclists are killed or seriously injured. For law enforcement, the training should be conducted as part of the Washington State Law Enforcement Academy curriculum, Washington State Patrol Academy, roll call and other in-service training opportunities. Training should be provided as well to prosecutors and judges as part of their continuing legal education requirements.	☑		
1.5 Expand funding for the WSDOT Safe Routes to School Pedestrian and Bicycle Safety Education Program administered in partnership with the Office of the Superintendent of Public Instruction.	☑		

Focus Area 2 - Promote positive traffic culture for pedestrians

Recommendations:	Legislative Action	Governor Action	Agency Lead
2.1. Continue to provide public policy changes, education, and enforcement about the state's new distracted driving law.	☑		WTSC
2.1.a. Fund the development and implementation of a targeted statewide public education campaign aimed at drivers who do not yet comply with Washington's distracted driving law.	☑		WTSC
2.1.b. Fund public education efforts to promote greater awareness of and care for all road users, targeted to drivers, pedestrians, and bicyclists.	☑		WTSC

Focus Area 3 - Prioritize infrastructure investments to reduce pedestrian fatalities and serious injuries.

Recommendation	Legislative Action	Governor Action	Agency Action
3.1 Provide funding to WSDOT to support a multi-agency, multi-disciplinary work group to identify appropriate levels of increased funding to support installation and maintenance of pedestrian friendly infrastructure (e.g., roundabouts, accessibility features, curb extensions, and crosswalk median islands) in contexts where people walk. Use increased funding to establish focused efforts on pedestrian safety infrastructure, operations, and maintenance programs.	☑		WSDOT
3.2. Update the Local Agency Guidelines Manual to be consistent with the WSDOT Design Manual and national design standards specific to pedestrian safety, including flexibility for traffic calming, separated facilities and the *5 Principles of Systematic Safety* from Vision Zero.			City and County Design Committee WSDOT

Focus Area 4 - Improve pedestrian data.

Recommendations:	Legislative Action	Governor Action	Agency Action
4.1. Provide funding to develop and implement methodology to determine reliable estimates of the number of pedestrians in the state, number of trips made by pedestrians, number of miles travelled by walking, and level of service measures for pedestrians.	☑		WSDOT
4.2. Provide funding to implement comprehensive inventory of pedestrian infrastructure in the state, e.g., number and type of signals and types of pedestrian facilities in place (for example, sidewalks, roundabouts, curb extensions, etc.).	☑		WSDOT

Recommendations:	Legislative Action	Governor Action	Agency Lead
4.3. Provide funding to improve the capabilities of, and accessibility to, WSDOT's Crash Data Portal to support the development of local pedestrian walkway and bicycle plans.	☑		WSDOT
4.4. Fund and evaluate a 5-year pedestrian fatality review pilot in two sites, one in Western Washington and one in Eastern Washington, to demonstrate the efficacy of the process to identify and address modifiable contributing factors.	☑		WTSC

Focus Area 5 - Invest in the development and implementation of local pedestrian walkway and safety plans that reduce pedestrian injuries and fatalities.

Recommendations:	Legislative Action	Governor Action	Agency Lead
5.1 Provide funding incentives to jurisdictions to develop effective pedestrian walkway and safety plans and/or include a section dedicated to the elimination of pedestrian fatalities and serious injuries as part of local and regional transportation plans or safety planning.			WSDOT
5.1.a. Using a multi-agency, multi-jurisdictional process, WSDOT should develop, adapt or adopt a template for effective local pedestrian walkway plans that includes criteria for prioritizing future investments to proactively reduce/eliminate pedestrian fatalities and serious injuries and other considerations such as increasing general access to pedestrian facilities like trails or sidewalks and/or connecting existing facilities to create continuous pedestrian routes.			WSDOT
5.1.b. Continue and expand training for local traffic safety planners and engineers on using the template and other tools for prioritizing future safety investments.			WSDOT

Focus Area 6 - Implement proven enforcement strategies.

Recommendations:	Legislative Action	Governor Action	Agency Lead
6.1. Change RCW 46.63.170 to allow placement of automated speed enforcement cameras on any road identified in an elementary school's walk area (RCW 28A.160.160).	☑		
6.2. Develop a new category of citation allowed for automated enforcement called "Failure to Yield to Pedestrians at a Designated School Crossing." Allow automated enforcement within any marked school crossing during times when students are walking and when flashing signs are lit or a sign is posted to notify drivers.	☑		
6.3. Authorizing legislation should stipulate that revenues generated from operation of the automated enforcement cameras be used only for support for the following six purposes: 1) development and operation of school safety patrols; 2) enforcement costs associated with reviewing automated enforcement citations; 3) funding of law enforcement to emphasize increasing safety in school zones and in elementary school walk areas ((including allocation of FTEs to school zone enforcement, where appropriate); 4) maintenance of the automated enforcement equipment; 5) providing infrastructure improvements that will reduce the risk of pedestrian and bicycle fatality or injury; and, 6) public education and outreach to encourage more parents/guardians to have their children walk or bicycle to school.	☑		

Discussion of 2017 Recommendations

Focus Area 1 - Explore laws, rules, and ordinances that support pedestrian safety.

1.1. Work with local jurisdictions and other state agencies to develop a target speed policy and guidelines that emphasize lower speeds on state routes, city streets, county and tribal roads compatible with the needs of all users and, if considered necessary, recommend changes to legislation regarding statutory speed based on the target speed policy.

Discussion:

On some streets/roads, the operating speed is higher than it should be given the context, surrounding land uses, and other factors contributing to crashes. In some places, changes are needed to the way the road looks and feels to get motorists to drive the target speed based on identifying the uses intended for a given road segment along with the associated target speed that would be compatible with those uses. There is a difference between how fast a driver *can* travel on a given road and how fast they *should* travel, taking into account other road uses and surrounding access points. The single largest variable in both pedestrian and bicyclist fatal and serious injury crashes is the speed the vehicle was travelling at impact. About 5 percent of pedestrians will die if struck by a vehicle going 20 mph, but 45 percent of pedestrians will die if the vehicle is going 30 mph at impact.

Lower vehicle speeds, along with pedestrian-related infrastructure in areas with pedestrian activity, will reduce the risk of pedestrian fatalities and serious injuries. The proposed workgroup would study the priorities of pedestrian safety and mobility and moving vehicles from place to place as efficiently as possible, and make recommendations for preferred ways of determining appropriate speed limits in areas where pedestrian activity is expected.

1.2. Remove barriers for obtaining a warrant for timely blood draw from drivers involved in collisions with pedestrians where there is a suspected pedestrian injury.

Discussion:

Driver impairment is involved in more than half of all of the state's traffic-related fatalities. The percentage of drivers involved in these crashes who tested positive for drugs other than alcohol (including THC, the active intoxicating chemical in cannabis) is now greater than the percentage of drivers who tested positive for alcohol alone. In addition, it is likely that the percentage of drivers who are driving after using cannabis might be even higher. Currently, the only way to test for the presence of THC or drugs other than alcohol is through analysis of blood. Because THC can metabolize out of the body in a matter of a few hours having the ability to compel a blood test quickly is a matter of extreme importance.

According to the National Roadside Survey, weekend nighttime drivers with evidence of drugs in their system climbed from 16.3 percent in 2007 to 20 percent in 2014. The number of drivers with marijuana in their system grew by nearly 50 percent (Marijuana-Impaired Driving: A Report to Congress, NHTSA, 2015). That same study found that 18 percent of vehicle operators in pedestrian fatality cases, and 6 percent of vehicle operators in serious injury crashes, were determined to be impaired by drugs at the time of the crash.

Supporting Actions:

1.2.a. Provide funding support to Washington Technology Solutions (WaTech) to develop a statewide electronic warrant system that would allow a judge to authorize a timely blood warrant based on a review of documents received electronically.

Discussion:

This recommendation addresses delays caused by the requirement to obtain a warrant to draw blood. A person cannot be compelled to provide a blood draw unless there is a legal warrant from a judge. This requirement oftentimes causes delays because a judge cannot be located. Getting a warrant could be speeded up by developing a system where judges could review evidence and issue warrants electronically instead of having to physically look at evidence. This e-warrant system is presently being developed by agencies participating in the state's Statewide Electronic Collision and Ticket Online Records (SECTOR) system. A working prototype of an e-warrant system currently exists in Spokane County and officers there wait for mere minutes for approval of a blood warrant while blood warrants in others parts of the state can sometimes take several hours. Providing the necessary resources to complete development of the system statewide would result in faster development of a statewide capability to have e-warrants for blood draws.

1.2.b. Change Washington State law to require public hospitals and emergency rooms to prioritize blood draws related to criminal investigations (e.g. DUI) over non-emergent cases, and to authorize providers to bill the blood drawee's health insurance for associated costs.

Discussion:

This recommendation addresses problems that exist accessing certified professionals to actually draw the blood. Many medical facilities such as hospitals or emergency rooms are either outright refusing to do blood draws associated with criminal cases or are prioritizing them behind their other patients. This leads to delays in getting blood draws and, literally, a dissipation of evidence of impairment for persons who had been using cannabis and drugs other than alcohol.

Alcohol metabolizes out of the body at a scientifically measurable rate. So, the alcohol level at the time of a crash can be determined scientifically by knowing the alcohol level at a point in time after the crash. No metrics currently exist for calculating the level of THC or other drugs hours after a crash. Therefore, a blood draw must be done as soon as possible after the crash.

Requiring hospitals and emergency rooms to prioritize blood draws over non-emergent patients would eliminate one access issue. Hospitals and emergency rooms argue that since this is not a medical treatment procedure they cannot be paid for the work. Authorizing the hospital or emergency room to specifically bill the suspect's medical insurance would create a mechanism for the medical facilities to receive payment of their work.

1.2.c. Provide funding support for implementation of an effective law enforcement phlebotomy program where law enforcement officers draw blood from suspects in crimes.

Discussion:

In the absence of consistent access to medical facilities for blood draws, some law enforcement agencies are already training their officers as phlebotomists so they can draw blood themselves after a warrant is received. Developing this capacity further across the state can greatly increase the timeliness of blood draws.

1.3. Change Washington State law to double penalties for drivers cited for any traffic offense associated with a crash in which a pedestrian is killed or seriously injured.

Discussion:

A number of traffic safety-related offenses currently result in an increase in possible penalties depending on the circumstances of the crime. For instance, persons who are caught speeding through a marked construction zone will have their fine doubled. This recommendation provides for doubling penalties where a pedestrian is killed or seriously injured.

1.4. Create requirement for law enforcement, prosecutors, and judges to be trained about Washington State's Vulnerable User law, RCW 46.61.526 (Negligent driving—Second degree—Vulnerable user victim) and how to apply it to instances where pedestrians and bicyclists are killed or seriously injured.

Discussion:

Many jurisdictions have said that the Vulnerable User law is difficult to implement because proving the intent of the driver to injure is difficult. There also is a general lack of awareness about the law among law enforcement. This recommendation is to support training about the Vulnerable User law for law enforcement, prosecutors, and courts about what the law says and how it can be applied. Additionally, it is recommended that a group of prosecutors consider the law and the circumstances under which it can be successfully prosecuted and then share that information with other prosecutors.

1.5. Expand funding for the WSDOT Safe Routes to School Pedestrian and Bicycle Safety Education Program.

Discussion:

Additional funding could expand the number of districts that can participate and help institutionalize the program in school districts currently served by the program. In addition,

more funding would make it possible to make public presentations about pedestrian safety and driver choices that contribute to improved safety performance to existing community and school meetings like parent-teacher conferences and local PTSAs. WSDOT administers this program in partnership with the Office of the Superintendent of Public Instruction (OSPI).

Focus Area 2. Promote positive traffic culture for pedestrians.

2.1. Continue to provide public policy changes, education, and enforcement about the state's new distracted driving law.

Discussion:

Distracted driving is a serious problem in Washington State. According to the Washington State Strategic Highway Safety Plan 2016: Target Zero, driver distraction is involved in 30 percent of all traffic-related fatalities and 23 percent of all traffic-related serious injuries.

Pedestrian distraction was discussed as a factor. Pedestrians using electronic devices make up 14 percent of pedestrian fatalities and 10 percent of serious injuries (Washington State Strategic Highway Safety Plan 2016: Target Zero, WTSC). These data include cases in which, for example, a driver strikes a pedestrian who is crossing legally with the light while talking on a phone. Data are not available to determine whether pedestrian use of devices is a factor in some collisions, whereas a driver using a device while driving is breaking Washington state law. This is a significant distinction as a pedestrian running into a vehicle will likely cause little to no damage to those in the vehicle, while a motorist running into a pedestrian can cause serious injury or death.

With regard to distractions, the PSC believes that the greater responsibility for preventing pedestrian-related serious injuries and fatalities lies with drivers. But the PSC does see roles that both drivers and pedestrians can play to reduce collisions between vehicles and pedestrians and recommends the following steps to eliminate pedestrian fatalities and serious injuries due to distraction.

2.1.a. Fund the development and implementation of a targeted statewide public education campaign aimed at drivers who do not yet comply with Washington's distracted driving law.

Discussion:

Ninety percent of Washington drivers do not use their mobile devices while driving (2016-2017 Distracted Driver Observation Surveys, WTSC, 2017). Future campaigns need to focus on the remaining 10 percent. Continued funding is required to better understand this segment of the population and target them with persuasive messages and incentives. Depending on the populations, the best message delivery media will range from billboards located along city streets to social media placement.

2.1.b. Fund public education efforts to promote greater awareness of and care for all road users, targeted to drivers, pedestrians and bicyclists.

Discussion:

Funds provided by the Legislature could support production of public awareness materials like the "See and Be Seen" campaign developed in Spokane.

Focus Area 3 - Prioritize infrastructure investments to reduce pedestrian fatalities and serious injuries.

Discussion:

Pedestrian fatalities made up nearly 16 percent of the state's traffic-related fatalities over the five-year period 2012 – 2016. At least 379 pedestrians died in Washington State during that period of time, an average of nearly 76 per year. In the first two quarters of 2017, there were 44 pedestrian fatalities, putting the state on track to have as many pedestrian fatalities as 2016's record-breaking 89 pedestrian fatalities (WTSC, Quarterly Target Zero Data, 2017). Similarly, serious injuries to pedestrians account for nearly 15 percent of all serious traffic-related injuries. Nationwide pedestrians make up nearly 11.4 percent of all trips (Pedestrian Safety Overview, NHTSA, 2009).

At the same time, the legislatively appropriated investment in pedestrian and bicycle safety last year from federal and state resources was around 5.4 percent of appropriations for traffic safety engineering and construction. Clearly, the level of investment in preventing pedestrian fatalities and serious injuries is not consistent with the percentage of pedestrians in the state's fatality and serious injury data.

Throughout the course of its 2017 discussions, the PSC repeatedly saw opportunities to improve conditions at crash locations given resources, such as shortening the crossing distance, providing median islands, and clear identification for both drivers and pedestrians of crosswalks and crossing areas for pedestrians and drivers.

The PSC recommends the following next steps.

3.1. Provide funding to WSDOT to support a multi-agency, multi-disciplinary work group to identify appropriate levels of increased funding to support installation and maintenance of pedestrian friendly infrastructure (e.g., roundabouts, accessibility features, curb extensions, and crosswalk median islands) in contexts where people walk. Use increased funding to establish focused efforts on pedestrian safety infrastructure, operations, and maintenance programs.

Discussion:

Over a five-year period (2012 – 2016), legislatively appropriated pedestrian and bicycle funding made up an estimated 5.4 percent of combined federal (2.4 percent) and state (3 percent) funding for traffic safety engineering and construction. This does not include locally directed finding sources. Implementation of the right countermeasures (such as sidewalk, pedestrian scale lighting, roundabout, other crossing improvements, etc.) in the right places is an effective way to decrease pedestrian fatalities and serious injuries. Changing the physical environment of a roadway is considered a best practice to slow the movement of vehicles.

3.2. Update the Local Agency Guidelines Manual to be consistent with the WSDOT Design Manual and national design standards specific to pedestrian safety, including flexibility for traffic calming, separated facilities and the *5 Principles of Systematic Safety* from Vision Zero.

Discussion:

Update the Local Agency Guidelines Manual to be consistent with the updated WSDOT Design Manual and national design standards specific to pedestrian safety, including flexibility for traffic calming, separated facilities and the *5 Principles of Systematic Safety* from Vision Zero. Updating this guidance document would ensure consistency about implementing new recommended design standards for city and county roads and could place the newly developed target speed policy as a central design consideration.

Focus Area 4 - Improve pedestrian data.

4.1. Provide funding to develop and implement methodology to determine reliable estimates of the number of pedestrians in the state, number of trips made by pedestrians, number of miles travelled by walking, and level of service measures for pedestrians.

Discussion:

Presently no reliable methods exist for estimating the numbers of pedestrians, the types of trips they take or even the number of miles they walk. This kind of information is necessary to do effective planning for improvement of pedestrian safety in the state. Further, it is difficult to put the number of pedestrian fatalities in proper perspective. Clearly, there are too many pedestrian fatalities. But what is the rate at which pedestrian fatalities occur and do rates differ between communities? This recommendation would support development of a reliable method for estimating pedestrian activity so effective pedestrian safety planning could be undertaken.

4.2. Provide funding to implement comprehensive inventory of pedestrian infrastructure in the state, e.g., number and type of signals and types of pedestrian facilities in place (e.g., sidewalks, roundabouts, curb extensions, etc.)

Discussion:

Currently no comprehensive inventory of pedestrian safety infrastructure is available in the state. This information is necessary so improvements can be effectively designed to connect existing facilities to one another in order to improve connectivity for pedestrians. The concept of connectivity between, or access to, pedestrian safety infrastructure is central to this recommendation. Connectivity is the degree to which the transportation system provides access to essential services and other destinations for various users from vehicles to pedestrians. This recommendation would establish a central database of pedestrian-friendly infrastructure that can be used by planners at various jurisdictional levels to track assets and improve connectivity for pedestrian infrastructure.

4.3. Provide funding to improve the capabilities of, and accessibility to, WSDOT's Crash Data Portal to support the development of local pedestrian walkway and bicycle plans.

Discussion:

WSDOT provides a public-facing resource called the Crash Data Portal that provides extensive local information about vehicle crashes, contributing factors to the crashes, and users involved in the crashes. Community groups, planners, engineers, and researchers all use this resource to assess safety performance. The Phase I deployment is complete and WSDOT is moving toward its Phase II design and implementation.

Continued funding will support the development of Phase III implementation focused on supporting the development of safety plans and analyses for the identification and prioritization of investments and functionality to meet the needs of end users like traffic safety engineers, planners, and stakeholders.

Currently, very few of Washington State's 29 federally recognized tribes have data in the WSDOT Crash Data system about crashes on reservations and surrounding areas. The areas within about five miles of reservations have some of the highest crash rates by population in the state. It is a long-term goal of the WTSC to have tribal law enforcement more consistently report collisions they investigate on the reservations and submit crash report forms to WSDOT so that effective traffic safety and law enforcement planning can take place. Phase III of the Crash Data Portal includes developing a tribal layer to display crashes that occur on or near reservation communities.

4.4. Fund and evaluate a five-year pedestrian fatality review pilot in two sites, one in Western Washington and one in Eastern Washington, to demonstrate the efficacy of the process to identify and address modifiable contributing factors.

Discussion:

Child fatality review panels have operated in Washington State for years and are considered an essential part of the response to public health problems. Child fatality review panels have been used to identify contributing factors for vehicular crashes, suicides, Sudden Infant Fatality Syndrome (SIDS), drowning, and a host of other problems. Functionally, they empanel a group of experts from multiple fields to review and comment on fatalities. Through this process of open dialogue, possible solutions are developed and then tried by the participating experts and agencies. The group then reconvenes to assess whether their recommended strategies were effective.

This proposal would expand an existing child death review panel on each side of the state to review pedestrian fatalities. The outcome of the reviews would be recommendations about what could be done to prevent future fatalities and serious injuries at specific locations. Reports of findings from the pedestrian reviews would be presented to elected officials, creating accountability for addressing problems uncovered during the review.

Focus Area 5 - Invest in the development and implementation of local pedestrian walkway and safety plans that reduce pedestrian injuries and fatalities.

Discussion:

5.1. Provide funding incentives to jurisdictions to develop effective pedestrian walkway and safety plans, and/or include a section dedicated to the elimination of pedestrian fatalities and serious injuries as part of local and regional transportation plans and safety planning.

WSDOT supports the use of local road safety plans. In 2017, WSDOT began requiring counties applying for funding from the County Safety Program to submit a local roads safety plan with their applications. Thirty-three of 39 counties now have local road safety plans in place. Some counties incorporated a discussion of pedestrian and bicycle safety in their plans. WSDOT provided tools, crash data, and support for the development of the safety plans. In 2018 cities applying for systematic safety improvement funding from the City Safety Program will be required to submit a local road safety plan.

Some local planners and agency staff have expressed concern about exposing their jurisdictions to lawsuits if they develop plans that list locations for investment based on crash histories or other indicators of risk, especially if there is no funding to implement projects at these locations.

In a presentation to the PSC, John Milton, WSDOT's Director of Safety, Quality, and Enterprise Risk, told the group that those concerns could be addressed by emphasizing the use of facts and defensible processes for ranking what work will be done. He said, for instance, communities should show data related to intersections and utilize an objective formula for identifying and prioritizing future safety investments as funding becomes available.

The PSC recommends the following next steps:

5.1.a. Using a multi-agency, multi-jurisdictional process, WSDOT should develop, adapt or adopt a template for effective local pedestrian walkway plans that includes criteria for prioritizing future investments to proactively reduce/eliminate pedestrian fatalities and serious injuries and other considerations such as increasing general access to pedestrian facilities like trails or sidewalks and/or connecting existing facilities to create continuous pedestrian routes.

Discussion:

WSDOT should lead an effort to develop, adapt or adopt a template for effective pedestrian walkway and safety plans. The group should include representatives from local jurisdictions – counties and cities – who will be utilizing the document to develop pedestrian walkway and safety plans. The template should provide effective guidance for local planners to identify and prioritize locations and improvements to eliminate/reduce pedestrian fatalities and serious injuries.

5.1.b. Continue and expand training for local traffic safety planners and engineers on using the template and other tools for prioritizing future safety investments.

Discussion:

WSDOT should develop, adapt or adopt, and implement training for local traffic safety planners and engineers about developing pedestrian walkway and safety plans. As part of educational outreach to local planners and engineers, WSDOT could provide information about how to reduce legal challenges. The presentations could emphasize developing pedestrian walkway plans and prioritizing pedestrian safety investments. WSDOT would identify conferences, existing annual meetings, and forums with targeted presentations where the template for the pedestrian walkway and safety plan can be explained and discussed.

Focus Area 6 - Implement proven enforcement strategies.

6.1. Change RCW 46.63.170 to allow placement of automated speed enforcement cameras on any road identified in an elementary school's walk area (RCW 28A.160.160).

Discussion:

The school "walk zone area" means that area around a school with an adequate roadway configuration to provide students access to school with a walking distance of less than one mile, RCW 28A.160.160. Students walking to school is an important component of the state plan to increase physical fitness among the state's student population and to decrease the prevalence of health conditions related to lack of physical activity. Additionally, students walking to school reduces congestion caused by parents/guardians dropping off/picking up students from school. As much as 15 percent of morning traffic comes from parents/guardians transporting students to school.

Parents reported safe road crossings and vehicle speed more often than the lack of sidewalks, bullying, and crime as reasons why their children did not walk to school. (Washington Student Travel Survey, 2016).

Some schools in the state prohibit students walking or bicycling to school due to safety concerns. For those schools, automated enforcement could be deployed on streets within one mile of the school to reduce overall travelling speed. Revenues could be used for pedestrian infrastructure investments with the goal of having the school change its policy to allow students to walk and bike.

State law currently allows the use of automated safety cameras within school zones but only a few jurisdictions use this option. In their implementation of automated enforcement, Seattle emphasized outreach and education for communities so they could understand what the devices can do to increase safety for students. It is likely that similar community education and outreach efforts would be needed to gain the support of local officials for implementation of automated enforcement. It is also likely that further efforts will be needed to understand the public's and local officials' attitudes about automated enforcement.

A pilot test of automated speed enforcement in Seattle demonstrated that not only did speed decrease in the sections of the street in the school zone that had automated enforcement but the reductions stayed consistent even during the hours when the automated traffic enforcement was not active. Additionally, total crashes and injuries decreased significantly during the pilot. A pilot test in Tacoma was similarly successful. Results indicate that an expansion of photo enforcement will contribute to pedestrian safety statewide. In addition, having automated enforcement slows traffic down until infrastructure changes can be made.

In New York City, automated enforcement has led to a 64 percent reduction in traffic offenses overall and a 4 percent overall reduction in speed. Less than 10 percent of those receiving a notice of infraction from an automated speed enforcement camera re-offend. A 2017 National Transportation Safety Board publication, "Reducing Speeding-Related Crashes Involving Passenger Vehicles," encourages states to,"…amend current laws to remove operational and location restrictions on the use of automated speed enforcement."

Revenues from automated enforcement equipment in school walk areas could be used for investments such as bulb outs to decrease the distance that students need to travel to cross streets and improved signage in the areas covered by the walk route map. Revenues could also be used to support operation of an expanded safety patrol where students – with adult direction – provide assistance in crossing streets safely.

New York City Experience With Automated Enforcement Pre- and Post Intervention

Crashes	Before Pilot, Citywide	After Pilot, Citywide	Percent Change
Total Crashes	7,980	7,361	-8 percent
Crashes with injuries	1,833	1,556	-15 percent
Injuries			
Motor Vehicle Occupant	1,914	1,665	-13 percent
Pedestrian	541	415	-23 percent
Cyclist	142	132	-13 percent
Total Injuries	2,597	2,213	-14 percent

Automated Speed Enforcement Program Report, 2014-2016, New York City Department of Transportation, 2017.

6.2. Develop a new category of citation allowed for automated enforcement called "Failure to Yield to Pedestrians at a Designated School Crossing." Allow automated enforcement within any marked school crossing during times when students are walking and when flashing signs are lit or a sign is posted to notify drivers.

Discussion:

Parents and guardians need reassurance concerning street design and enforcement of driver behavior along routes that children utilize to walk or bicycle to school. Establishing consistent enforcement at intersections where children will be crossing roads on their way

to or from school is a key to changing driver behavior, which will help make those crossings safer.

6.3. Authorizing legislation should stipulate that revenues generated from operation of the automated enforcement cameras be used only for support for the following six purposes:

(a) development and operation of school safety patrols;

(b) enforcement costs associated with reviewing automated enforcement citations;

(c) enforcement to emphasize increasing safety in school zones and in elementary school walk areas (including allocation of FTEs to school zone enforcement, where appropriate);

(d) maintenance of the automated enforcement equipment;

(e) providing infrastructure improvements that will reduce the risk of pedestrian fatalities or injuries; and

(f) public education and outreach to encourage more parents/guardians to have their children walk or bicycle to school.

Discussion:

In Seattle, there has been little protest of automated enforcement in school zones because there was an aggressive public education and outreach campaign that preceded deployment of the cameras. During the campaigns, residents heard presentations about how the schoolchildren were put at risk by the drivers' behaviors. Additionally, opposition to placement of the automated enforcement systems was reduced due to a stipulation that revenues generated from citations from the automated enforcement cameras would be used only for improving pedestrian and bicycle infrastructure and maintenance of the equipment.

Focus Area 7 - Include diverse stakeholders.

Discussion:

There are currently no recommendations for this focus area. Examining this focus area is included in the PSC's 2018 work plan.

Focus Area 6 - Encourage emerging technology that supports pedestrian safety.

Discussion:

There are currently no recommendations for this focus area. Examining this focus area is included in the PSC's 2018 work plan.

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Exhibit A – PSC Focus Areas and Timeline

Focus Area 1 - Explore laws, rules and ordinances that support pedestrian safety.	***2018***	***2019***
a. Encourage cities, towns, and tribes to take advantage of existing RCWs to establish maximum speed limits of 20 mph on non-arterial roads that are within a residential or business district. RCW 46.61.440 applies to cities and towns; RCW 46.62.480 applies to tribes. Consider traffic calming or slowing strategies in conjunction with posted 20 mph zones.		
b. Expand photo speed/red light enforcement within and beyond school zones; coordinate with 6.1.		
c. Provide legal protection for city and county pedestrian safety plans.		
d. Establish presumptive driver liability.	☑	
e. Explore laws and ordinances that allow alternative modes of transportation (e.g. golf carts) in pedestrian-heavy zones.	☑	
f. Encourage the adoption of design and operating policies and ordinances, to lower vehicle operating speeds as needed on roads based on context.		
Focus Area 2 - Promote positive traffic culture for pedestrians.	***2018***	***2019***
a. Establish funding for public education to increase pedestrian and driver awareness of risk and defensive behaviors.		
b. Add pedestrian safety to Target Zero objectives relating to impairment, speeding, and distraction involved driving/walking, AND coordinate with Target Zero efforts around *New Technology and Traffic Safety* to assure that pedestrian safety is included.	☑	
Focus Area 3 - Prioritize infrastructure investments to improve conditions for walking.	***2018***	***2019***
a. Identify key pedestrian crossing locations and install safety devices, such as rectangular rapid flash beacons and pedestrian hybrid beacons, to make crossing safer and easier.		

b. Design roads to reduce operating speed based on context and especially in areas where high levels of pedestrian activity would be expected.		
c. Encourage the inclusion of pedestrian safety improvements in infrastructure funding criteria.		
d. Explore land use policies that support pedestrian safety.	☑	
Focus Area 4 - Improve pedestrian data.	***2018***	***2019***
a. Highlight evidence for proven, effective strategies to improve pedestrian data.		
b. Identify over-represented user groups.	☑	
c. Identify factors that lead to some groups being over-represented in pedestrian/vehicle crashes.	☑	
d. Assess pedestrian data systems.	☑	
e. Explore exposure data.	☑	
f. Propose strategies to address the factors that lead to some groups being over-represented in pedestrian/vehicle collisions.	☑	
g. Propose changes to assure comprehensive, quality, shared, actionable data.		☑
Focus Area 5 - ***Invest in the development and implementation of local pedestrian walkway plans to reduce pedestrian fatalities and serious injuries.***	***2018***	***2019***
a. Identify actionable roadway design applications to calm traffic in pedestrian-heavy locations and prevent pedestrian/vehicle crashes.		
b. Identify, evaluate, and recommend pedestrian safety assessment tools that jurisdictions can use for multi-modal transportation planning.	☑	
c. Recommend crosswalk evaluation criteria that can be applied by jurisdictions statewide (e.g., a deeper look at pedestrian crash sites, places where pedestrians can be expected, and the availability of crosswalks and other safety features).	☑	

d. Invest in local pedestrian walkway plans.		☑
Focus Area 6 - Implement proven enforcement strategies.	***2018***	***2019***
a. Promote use of photo red/school zone or other speed enforcement and dedicate fees to pedestrian safety measures.		
b. Emphasis enforcement for driver and pedestrian violations in school walk zone areas.	☑	
Focus Area 7 - Include diverse stakeholders.	***2018***	***2019***
a. Develop an inclusion strategy so that we are hearing from groups about issues unique to tribes, people of color, non-English speaking people, children, elders, and people with disabilities.	☑	
b. Explore strategies around pedestrian impairment and supporting services (housing, drug and alcohol services).		☑
Focus Area 8 – Encourage emerging technology that supports pedestrian safety.	***2018***	***2019***
a. Identify technology that supports pedestrian safety.	☑	
b. Facilitate emerging vehicle technology that supports pedestrian safety.	☑	

Exhibit B – PSC Sponsors and Members

PSC Chair

Darrin Grondel, Director, WTSC

Executive Sponsors

Captain Monica Alexander, Government and Media Relations, Washington State Patrol
Dolly Fernandes, Section Manager, Washington State Department of Health
Darrin Grondel, Director, Washington Traffic Safety Commission
John Nisbet, P.E., State Traffic Engineer, Washington State Department of Transportation

Project Manager

Scott Waller, Program Manager, Washington Traffic Safety Commission

Data Analyst

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Facilitator

Heidi Keller

PSC Members

Marc Anderson, ARM, CRIS, King County Metro
Dongho Chang, P.E., PTOE, City of Seattle
Charlotte Claybrooke, Washington State Department of Transportation
Aimee D'Avignon, MPH, Washington State Department of Health
David Delgado, King County Medical Examiner Office
Josh Diekmann, P.E., PTOE, Tacoma Public Works Department
Mike Dornfeld, Washington State Department of Transportation Traffic Office
Officer Eric Edwards, Richland Police Department
Will Hitchcock, Ph.D., Washington State Department of Health
Sergeant Bill Judd, Renton Police Department Patrol Services Division
Julia Reitan, Feet First
Lieutenant Kurt Schwan, Federal Way Police Department Traffic Division
Janet Shull, AICP, CUD, Senior Planner, City of Seattle
Officer Paul Taylor, Spokane Police Department Traffic Unit
Ida Van Schalkwyk, Ph.D, Washington State Department of Transportation Traffic Office
Karen Wigen, Region 16 Target Zero Manager

Exhibit C - PSC Purpose and Scope

SSB 5957 established the PSC to "review and analyze data points at which the transportation system can be improved, and to identify patterns in pedestrian fatalities and serious injuries."

The WTSC convened the PSC in March 2016. Members include experts from multiple disciplines including law enforcement, traffic engineering, traffic safety, transportation planning, public transit, injury prevention, cities, counties, tribes, and the King County coroner. The PSC met monthly to review data on pedestrian safety and begin to compile evidence on actions that Washington can take to prevent pedestrian fatalities and serious injuries.

The PSC's purpose is to decrease pedestrian fatalities and serious injuries. To accomplish this, the PSC is directed to:

- Review and analyze crash data
- Identify points at which the transportation system can be improved
- Identify patterns in pedestrian fatalities and serious injuries
- Recommend changes in statutes, ordinances, rules, and policies to improve pedestrian safety

The PSC's recommendations are addressed to the WTSC, other state agencies, the Governor's Office, and the Transportation Committees of the Washington State Legislature.

The PSC's work plan is organized around eight focus areas. Each focus area is supported by actions for improving pedestrian safety. A complete list with action items and a timeline for the PSC's work is shown in *Exhibit A – PSC Recommendations and Timeline.*

1. Explore laws, rules, and ordinances that support pedestrian safety
2. Promote positive pedestrian culture
3. Prioritize infrastructure investments to reduce pedestrian fatalities and serious injuries
4. Improve pedestrian data
5. Invest in the development and implementation of local pedestrian walkway plans that support pedestrian safety.
6. Implement proven enforcement strategies
7. Include diverse stakeholders
8. Encourage emerging technology that supports pedestrian safety

Exhibit D – Background on Pedestrian Safety Issues

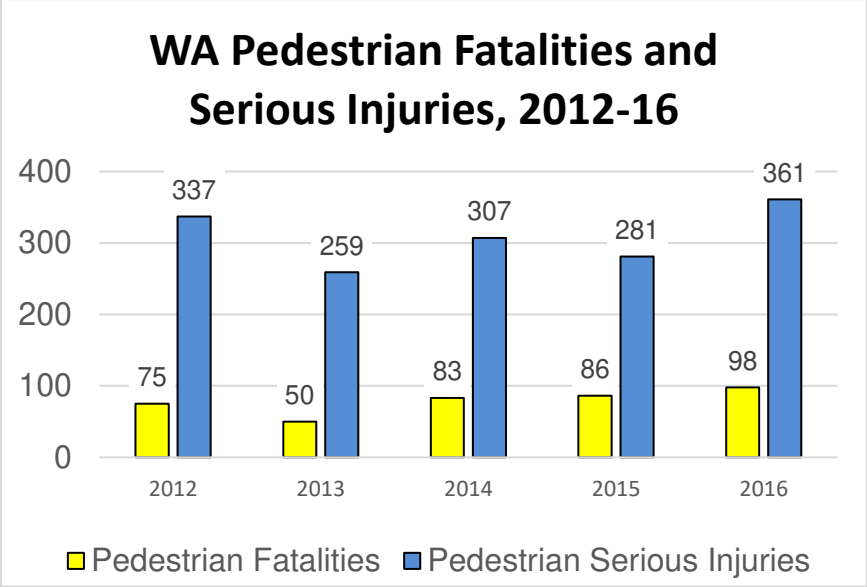
In 2017, Washington's Pedestrian Safety Advisory Council (PSC) explored pedestrian crash data summaries and individual case reports to understand the circumstances of these crashes, the reported contributing factors, and possible strategies for reducing pedestrian fatalities and serious injuries.

New Data Considered in 2017

The PSC began examining investigation reports about pedestrian fatalities in 2017. The group used a process modeled closely after the best practice Child Death Review Process where a group receives overall data about a particular issue and then chooses portions of that issue they want to focus on. In 2017, the PSC reviewed cases involving the following contributing factors:

- Slow speed crashes;
- Intersection-related pedestrian fatalities;
- Impairment issues; and,
- Roadway crossing-related fatalities.

Additionally, the group discussed local planners' concerns about liability exposure from prioritization of roadways for pedestrian safety action. The group examined multiple roadways to see the different ways local governments approach pedestrian safety improvements. The group began considering the ways that different populations (e.g., racial and ethnic groups, non-English speakers, persons with disabilities) experience pedestrian safety issues. Many PSC members participated in the King County Medical Examiners' traffic death review presentations to learn what happens when vehicles and pedestrians collide.



Quarterly Target Zero Data, Washington Traffic Safety Commission, 2017.

Here are some examples of Washington State pedestrian fatalities reviewed by the PSC:

- A Longview man died after being struck by a vehicle while crossing 11th Avenue. The driver did not see him while making a left turn across two lanes of oncoming traffic.

- A Lakewood man died after being struck by a vehicle while crossing Vernon Avenue SW. The intersection with Washington Boulevard SW has a traffic light but no crosswalk markings.

- A 90-year old Clarkston man in a motorized scooter died after being struck by a vehicle in a marked crosswalk at the intersection of Chestnut and Sixth Street. The driver was turning left and travelling at the posted speed at the time of the crash.

- A Kitsap County woman died, and her companion was seriously injured, after being struck by a vehicle on an unlighted stretch of Tracyton Boulevard at 2:17 AM. At the time of the impact, the woman had fallen in the middle of the road. Her companion was standing over her. The uninsured driver of the vehicle reported a distraction within his car and looked up just before striking the two people.

These are just a few of the 379 pedestrians who died, and the 1,552 other pedestrians who were severely injured, while walking on Washington's roadways between 2012 and 2016 (Quarterly Target Zero Data, WTSC, 2017). Each fatality and serious injury affects family members and friends. Each required emergency services, caused property damage, and incurred medical costs. Each represents a loss of future earnings and quality of life for the family as well as for the state. The National Highway Traffic Safety Administration (NHTSA) estimates that each traffic fatality has an estimated $9.1 million in societal costs so the total economic impact of pedestrian fatalities between 2012 and 2014 was more than $2.44 billion (The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised)).

The following are observations made by the PSC from its reviews of pedestrian fatality cases:

Roadway crossings – Pedestrians crossing the road is the most common pedestrian action reported in fatal and serious injury crashes. 57 percent of fatalities and 67 percent of serious injuries between 2012 and 2014 occurred while the pedestrian was crossing the road (Washington State Strategic Highway Safety Plan 2016: Target Zero). Other pedestrian actions result in serious injuries and deaths. But these are much less frequently. The other pedestrian actions include walking in the roadway, walking on the shoulder, and standing, working or playing in the road. Based on roadway crossing case studies the PS identified a need for greater investigation into the lack of traffic control facilities where fatal crashes occur.

Speed at impact – The single greatest predictor of whether a pedestrian survives a vehicle crash is the speed of the vehicle. The data shows that 14 percent of fatalities occurred on roads with a posted speed of 25 mph or less and 46 percent occurred on 30-35 mph roads (WSDOT 2012 – 2016 data summaries from WSDOT Active Transportation Division, 2017). On the PTCR reports involving pedestrian fatalities or serious injuries the actual speed of the vehicle at impact is often not determined and/or recorded an the posted speed limit so the posted speed is often used as a proxy for the speed that drivers were actually travelling..

Age and other physical attributes – Older adults, children, people with disabilities, and people taking medications like blood thinners are more likely to die or be seriously injured when they are involved in vehicle-pedestrian crashes. Coincidentally, these people frequently must walk in our state due to physical, economic or legal reasons.

Road design – Roads that are shared by people driving, walking and bicycling should be designed to feature frequent opportunities to cross the road, separate user groups, and include road characteristics that signal drivers to maintain lower speeds. Road design (e.g.,

discouraging passing or having roadside parking to establish a barrier between traffic lanes and pedestrians) can simplify how drivers and pedestrians can minimize conflicts.

PSC Guiding Principles

Pedestrian safety is included as a priority in Washington's State Highway Safety Plan, Target Zero® (www.targetzero.com). This year the PSC began including the 5 *Systematic Safety Principles* for road design, a planning framework credited with significant reductions in pedestrian fatalities and serious injuries.

The *5 Principles of Systematic Safety* represent a valuable framework for proactive planning and development of roadways to systematically eliminate the circumstances that result in high crash and injury risk. These principles have been adopted by a number of cities in Washington.

1. **Speed Control and Separation.** The speed at which traffic naturally flows can be lowered using a variety of features that are designed to make roads self-enforcing. These features include road reconfigurations that narrow travel lanes and reduce the number of travel lanes, raised intersections and crosswalks, speed humps, and crossing islands, among other treatments. *Separation* refers to the process of separating vehicles from other road users (pedestrians, bicyclists), especially on thoroughfares with higher posted speeds and several lanes of traffic.
2. **Functional Harmony.** This is achieved when road characteristics are in agreement with expected user groups and adjacent land use context. For example, roads that are shared by people driving, walking and bicycling to businesses and residences should feature frequent opportunities for the people to cross the road, and road characteristics that signal drivers to maintain lower speeds.
3. **Predictability and Simplicity.** People make fewer mistakes when they know what to expect and when decisions are simple. For example, median islands allow a pedestrian to cross in stages and check for traffic one direction at a time. Intersections that feature protected left turn phases make it simpler for a driver to know when to turn without having to judge gaps in oncoming traffic.
4. **Forgivingness and Restrictiveness.** *Forgivingness* means that if someone makes a simple mistake it will not result in serious injury. *Restrictiveness* means preventing people from making the mistakes they might want to make, discouraging passing, encouraging roadside parking as a buffer between vehicle traffic and pedestrians, and other methods that separate motorists from other road users.
5. **State Awareness** refers to things outside the realm of road design, such as drunk driving, texting, and inexperienced operators.

These principles underscore two undeniable truths that should guide all conversations regarding any interactions between pedestrians and vehicles:

First, humans are very vulnerable. Our bodies are not designed to withstand crashes with vehicles. Even when vehicles are travelling under 30 mph, crashes involving pedestrians may result in fatalities and serious injuries.

Second, we make mistakes. A system that reduces the likelihood of errors – and the severity of injury when errors do occur – reduces the effects that those mistakes have.

Exhibit E – Key Findings (from 2016 PSC Report)

Focus Area 1 - Explore laws, rules, and ordinances that support pedestrian safety.

Finding: The potential for pedestrian fatalities and serious injuries increases as vehicle impact speed increases.

When drivers are traveling at higher speeds, the forces imparted on the pedestrian at impact are much higher. The higher the vehicle impact speed, the less likely a pedestrian will survive a crash, as shown in the graphic below. Vehicle speed is a factor regardless of whether higher impact speeds are due to posted speed or speeding.

Percentage of Pedestrian Fatalities By Vehicle Speed

City of Philadelphia, Vision Zero Awareness Campaign, 2016

Finding: Accurate investigation of pedestrian and driver impairment requires collection of evidence that quickly dissipates with time.

- The influence of tetrahydrocannabinol (THC) in crashes is difficult to determine because THC metabolizes out of the body in a matter of hours. The only way to determine impairment from THC is to analyze blood. So the ability to compel a blood test quickly is essential to determining driver and pedestrian impairment (Hartman, 2016).

- Delays in blood draws are often caused by law enforcement not being able to locate a judge to issue a warrant authorizing the blood draw.
- We have much better data about the impairment levels of pedestrians in fatality reports than we do of drivers involved in any type of collision. This is because Washington State law requires that blood from individuals who die in traffic crashes, including pedestrians, be tested for intoxicants. There is no similar requirement for drivers unless they are suspected of violating a law such as driving while impaired that allows for a blood draw to be taken. Especially because of the potential of losing evidence of possible marijuana impairment due to delays in getting blood draws it is important to ensure that blood draws can happen as quickly as possible when impairment of the driver is suspected in a vehicle-pedestrian collision.

Focus Area 2 - Promote positive traffic culture for pedestrians.

Finding: Changing the culture around traffic safety is a promising approach with lasting benefits.

- Traffic safety culture refers to the values and beliefs shared among groups of road users, transportation professionals, and stakeholders that influence their decisions to behave and act in ways that affect traffic safety. Rather than viewing crashes as "accidents," a culture of traffic safety shifts the public view of traffic crashes from *inevitable* to *unacceptable*.
- Community change processes can be used to influence behaviors like speeding, seatbelt use, and recognition of the rights of other types of road users. Those approaches only work when attempts are made to understand what motivates people to act in a certain way and what they value. These "cultural beliefs and values" become leverage points for getting people to contemplate changing behavior.
- A key to this approach is understanding the values and beliefs of various segments within the population and tailoring interventions to meet their interests.
- A similar shift is also necessary and is underway in how roadways are planned and designed. Examples include jurisdictions that recognize and are working to provide a multi-modal system that considers context and transportation needs for all users. There is a need to update core policy and guideline documents, train staff, and update expectations to reflect this shift; efforts already underway should be recognized and supported.

Finding: Washington's distracted driver law has been effective, but more work is needed.

- Thanks to education and enforcement of Washington's new distracted driving law, 90 percent of Washington drivers do not use mobile devices while driving (Observational surveys, WTSC, 2017). Future efforts will need to specifically target the 10 percent of drivers who are not yet in compliance.

Focus Area 3 - Prioritize infrastructure investments to reduce pedestrian fatalities and serious injuries.

Finding: Increased investment in pedestrian facilities is needed.

Changes in land use and population growth are putting a strain on roads and intersections that were not designed to accommodate today's increased residential and commercial pedestrian traffic. While Washington State Department of Transportation's (WSDOT) *Connecting Washington* package included funding for capital improvements for pedestrians, it does not address the total backlog of needed improvements, or the maintenance, preservation, and operations components that are also important for success.

The following represents just *some* of the opportunities for investment that would support the goal of reducing pedestrian fatalities and serious injuries:

- Traffic controls such as traffic signals and signs: 64 percent of pedestrian fatal and serious injury crashes occur where there are no traffic control devices (Fatal Analysis Reporting System, WTSC, 2016).
- Crossing treatments: More than half (57 percent) of pedestrian fatalities and 67 percent of serious injuries occurred while the pedestrian was crossing the road (Washington State Strategic Highway Safety Plan 2016: Target Zero).
- Features such as enhanced pedestrian-scale illumination and visibility features, combined with pedestrian crossing enhancements.
- Creation and modification of road environments that reduce vehicular operating speeds where context and higher pedestrian use and exposure levels exist.
- Enhanced crossing and separation strategies for higher speed environments where the context would not support lower operating speeds.

Infrastructure treatments will have higher potential for success when factors such as the context of how particular roadways are used and which groups of people utilize the roadways are considered. As an example of how a design change for one set of users will affect another group, adding a turn lane will aid drivers with turn movements, while at the same time increasing crossing distances – and therefore exposure – for pedestrians. Engineers and planners in the state continue their work to create, update, and advance policies and approaches that are multi-modal and support people walking, bicycling, *and* driving more safely. Design changes that contribute to safety for pedestrians contribute to safety for people using every mode of transportation.

Focus Area 4 - Improve Pedestrian Data.

Finding: Further mining of pedestrian crash and travel data will allow state and local agencies to invest in safety solutions for problem locations.

- The PSC has identified valuable data sources located within a variety of state, local, and regional organizations that are not routinely combined and analyzed. These include in-depth reviews of law enforcement investigations of pedestrian fatalities.

- WSDOT's Crash Data Portal (https://remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/), is a public-facing resource that provides extensive local information about types, users involved, and contributing factors to crashes. Phase II design and Phase III implementation will make this resource more available and accessible.
- There currently is no reliable way to determine how many people are walking – and for how far or how often. We know that there is a pedestrian fatality every five days in Washington State and a serious injury every day. Because we do not presently have a methodology for determining the number of walkers beyond very partial information from the National Household Travel Survey about commute trips, we cannot determine how often those events happen in given populations. Having that information is critical to planning.
- One promising methodology for analyzing the contributing factors and conditions for pedestrian fatalities and serious injuries is the Child Death Review (CDR) process. Used now by several counties, CDR brings together a multi-jurisdiction panel to review and analyze cases. The CDR process, when done comprehensively and with prevention as the goal, can lead to systems, policy and environmental changes that have lasting benefit to communities. It is largely through this approach that Sudden Infant Fatality Syndrome (SIDS) deaths have been drastically reduced. An equivalent process reviewing pedestrian fatalities could be similarly effective.
- Washington State tribal leaders are increasingly identifying the need to develop better data to explain why American Indians/Alaska Natives (AI/AN) are over-represented in both fatalities and serious injuries – including pedestrian fatalities.

Focus Area 5 - Invest in the development and implementation of local pedestrian walkway plans that support pedestrian safety.

Finding: Local pedestrian walkway plans that prioritize future investments based on accumulated local data are an effective way to prevent future fatal and serious injury crashes.

- In 2017, WSDOT began requiring counties applying for funding from the County Safety Program to develop and submit local road safety plans with their applications. The requirement will be extended to the City Safety Program in 2018.
- The plans submitted by counties were of varying lengths, detail, and comprehensiveness. There is a need to adapt or adopt a template for local planners to develop effective and thorough plans that include criteria for prioritizing future investments to reduce/eliminate pedestrian fatalities and serious injuries. Moreover, there is a need to provide training to local planners about how to gather necessary local data and how to utilize the templates to align local plans with state agency reporting and application processes.

Finding: The PSC recognizes that improving pedestrian safety cannot be achieved solely through infrastructure investments. It must include a component addressing human and behavioral factors. We also need to effectively mobilize additional sectors (e.g., social services, education,

enforcement) to help change people's behaviors in ways that will reduce pedestrian fatalities and serious injuries.

- One long-term approach is working to change the culture around traffic safety to 1) favor compliance with laws, and 2) support implementation of strategies that reduce fatalities and serious injuries. Effective interventions can be developed when there is an understanding about what motivates people to act in a certain way and what they value. These "cultural beliefs and values" become leverage points for moving people to contemplate changing.
- "Bystander Intervention" is another strategy that holds promise. The approach has had considerable success in getting friends and/or strangers to intervene in situations that might be dangerous. As applied to pedestrian safety, bystander intervention could work to "activate" people to address the behavior of someone who, for example, decides to drive too fast for conditions, cross a street in the middle of a block, or drive or walk while impaired.

Focus Area 6 - Implement proven enforcement strategies.

Finding: Photo enforcement pilot projects have resulted in significant and lasting decreases in crashes involving pedestrians and speeding.

- An initial demonstration project with automated speed enforcement in Seattle school zones demonstrated that not only did speed decrease during school hours, but also that speed reductions stayed consistent even during the hours when the automated traffic enforcement was not active. Additionally, serious injuries from crashes decreased in areas with automated enforcement as compared with the control areas pre- and post-intervention. (City of Seattle Traffic Safety Camera Pilot Project Final Evaluation Report, 2007).
- In New York City, automated enforcement has led to a 64 percent reduction in traffic offenses overall, and a 4 percent overall reduction in speed (Automated Speed Enforcement Program Report, 2014-2016, New York City Department of Transportation, 2017).
- Fewer than 10 percent of those people receiving a notice of infraction from an automated speed enforcement camera reoffend (City of Seattle Traffic Safety Camera Pilot Project Final Evaluation Report, 2007). In Spokane, there was a 20 percent drop in the number of school zone automated speed enforcement camera citations recorded during the first year of operation (Spokesman-Review, Dec. 13, 2017).

In gathering and compiling information in this report, participating organizations and agencies do not waive the limitations on this information's discoverability or admissibility under 23 U.S.C SS 409.