Regional Transportation Safety

Bicycle Pedestrian Advisory Committee
May 12, 2020
Today’s Discussion

➢ 2020 Federal Safety Performance Management targets

➢ Overview of the State’s Strategic Highway Safety Plan, *Target Zero*

➢ Additional background data on safety including breakdown by mode and factor

➢ Overview of local efforts to address safety

➢ PSRC planning for safety
MAP-21/FAST Act required state DOTs and MPOs to set targets for a variety of transportation-related performance measures beginning in 2018.

Initial safety targets were based on state’s Strategic Highway Safety Plan, *Target Zero*, using a straight-line projection from 2016 that achieves zero fatalities and serious injuries by 2030.

Safety targets are required to be updated annually –
- 2019 targets were based on the same trend line as the 2018 targets
- 2020 targets were based on a revised trend line from 2018-2030

PSRC adopted latest regional targets in February 2020.
## Federal Performance Measures - Background

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<th>Performance Measures</th>
<th>Initial PSRC Board Action</th>
<th>Update Schedule</th>
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<td>Transit Asset Management</td>
<td>Approved June 2017</td>
<td>Every 4 Years*</td>
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<td>Safety Performance</td>
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<td>Annual</td>
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<td>Bridge and Pavement Condition</td>
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<td>Congestion Mitigation and Air Quality Improvement Program (CMAQ)</td>
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<td>Transit Safety</td>
<td>Expected January 2021</td>
<td>Every 4 Years</td>
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* Transit agencies are required to update their transit asset management targets annually
Target Zero: Washington’s Travel Safety Plan

- Goal is to eliminate traffic fatalities and serious injuries by the year 2030

- Developed by the Washington Traffic Safety Commission and partners including WSDOT, WSP, DOL, and others

- A data-driven plan that identifies priority factors (e.g. Impaired Driving, Speeding) based on the percentage of fatalities and serious injuries associated with them

- Includes a wide array of strategies to reduce fatal and serious injury collisions
Strategies fall under 5 main categories:

- **Education**: Inform system users so they can make the best decisions
- **Enforcement**: Use data-driven analysis to identify and address hot spots
- **Engineering**: Design roadways that prevent or reduce the severity of collisions
- **Emergency Medical Services**: Provide rapid emergency response to injury collisions
- **Leadership/policy**: Strategies that involve laws, agency rules, or policy changes
USDOT Safety Performance Management Measures

1) Number of fatalities

2) Rate of fatalities per 100 million vehicle miles traveled (VMT)

3) Number of serious injuries

4) Rate of serious injuries per 100 million vehicle miles traveled

5) Number of non-motorized fatalities and serious injuries
Target-Setting Methodology

- Based on Target Zero straight-line projection to reach zero fatalities and serious injuries by 2030
- Projected trend line begins at 5-year rolling average for 2014-2018
Number of Fatalities (5-Year Avg.)
Target Zero Projection and 2020 Targets

Source: WSDOT, 2019
Fatality Rate Per 100M VMT (5-Year Avg.)
Target Zero Projection and 2020 Targets

Observed Data:
5 Yr. Avgs.

Target Zero
Projected Trend Line

2018 WSDOT Target: 0.71
2018 PSRC Target: 0.56

2018 WSDOT Target: 0.71
2018 PSRC Target: 0.56

2020 WSDOT Target: 0.73
2020 PSRC Target: 0.60

Source: WSDOT, 2019
Number of Serious Injuries (5-Year Avg.)
Target Zero Projection and 2020 Targets

Observed Data:
5 Yr. Avgs.

Target Zero
Projected Trend Line

Source: WSDOT, 2019
Serious Injury Rate Per 100M VMT (5-Year Avg.)
Target Zero Projection and 2020 Targets

Observed Data: 5 Yr. Avgs.

Target Zero Projected Trend Line

2018 WSDOT Target: 3.06
2018 PSRC Target: 2.94

2020 WSDOT Target: 2.98
2020 PSRC Target: 2.92

Observed Data: 5 Yr. Avgs.

Source: WSDOT, 2019
Bike/Ped Fatalities & Serious Injuries (5-Year Avg.)
Target Zero Projection and 2020 Targets

Source: WSDOT, 2019
Additional Background

Fatal/Serious Injury Crashes in the Central Puget Sound Region

Source: WSDOT, 2019
Comparison with Other Data Trends

% Change in the Central Puget Sound Region between 2010 and 2018

Fatal and Serious Injury Crashes: 6%
Vehicle Miles Traveled: 12%
Population: 25%
Employment: 1%

Source: WSDOT, 2019; OFM, April 1, 2018 population of cities; ESD, WA Employment Estimates April 2018; PSRC, 2019
Fatalities and Serious Injuries Combined by Mode in the Central Puget Sound Region

Source: WSDOT, 2019
Fatalities/Serious Injuries by Mode

% Change in Fatalities & Serious Injuries Combined by Mode between 2010 and 2018 in the Central Puget Sound Region

Motorists: -12%
Pedestrians: 34%
Bicyclists: 23%
Total: -3%

Motorists (purple), Pedestrians (red), Bicyclists (teal), Total (green)
% of Fatalities and Serious Injuries Associated with Various Factors

% of Fatalities and Serious Injuries Combined Associated with Various Factors in the Central Puget Sound Region in 2018

- Behavioral
- Age-Related
- Other

- Intersection Related: 35%
- Lane Departure: 30%
- Under 25 Driver: 30%
- Distracted User: 26%
- Speeding Involved: 25%
- Impairment Involved: 25%
- Run off the Road: 21%
- 65+ Driver: 14%
- Unrestrained Occupant: 10%
- Opposite Direction: 9%
- Drowsy Driver Involved: 2%

Source: WSDOT, 2019
Factors Involved: % Change between 2010 and 2018

% Change in Fatalities and Serious Injuries Combined Associated with Various Factors in the Central Puget Sound Region between 2010 and 2018

- Behavioral
- Age-Related
- Other

Source: WSDOT, 2019
Several jurisdictions have developed Local Road Safety Plans, which prioritize projects based on data analysis of WSDOT crash data to identify risk factors and key locations.

Other jurisdictions incorporate safety initiatives as part of broader planning efforts (e.g. comprehensive plans).

Most jurisdictions utilize established countermeasures (e.g. lane striping, re-timing signals) outlined by FHWA or in the State’s Target Zero Plan.
Local Safety Projects and Initiatives

Local jurisdictions are addressing safety through various types of projects and programs:

• Proactively educating users of the transportation system through collaborations with local advocacy groups, safety campaigns, and other events

• Creating safer pedestrian and bicycle pathways, including safe routes to school

• Employing road design techniques that improve safety

• Deploying street calming measures in residential areas

• Upgrading railroad crossings

• Targeted enforcement efforts (e.g. Target Zero Patrols, DUI Patrols)
• Draft VISION 2050 emphasizes a safe transportation system and supports the state’s goal of achieving zero fatalities and serious injuries in the long-term

• The Regional Transportation Plan (including the Active Transportation Plan) delves into the importance of improving safety for all users of the system

• Safety is incorporated into the evaluation of projects included in the Regional Transportation Plan, as well as in the competitions for PSRC federal funds

• Over the years PSRC has distributed funds to projects that include key safety elements, such as safer intersection designs and separated bicycle and pedestrian facilities
Next Steps

Federally-Required Performance Targets

• Continue to adopt specific annual safety performance targets as required by federal legislation.

Additional Safety-Related Work

• Continue to conduct regional analysis of safety data by mode, associated factors, and other key elements that go beyond federal requirements.

• Continue exploring options for refinement to performance metrics, additional data, etc. for the next RTP update.

• Future Toolbox Peer Networking Session on safety.