Webinar Agenda

• Introduction
• Safety Focused Decision Making Framework Overview
• Safety Focused Decision Making using Safety Planning Tools
• Review of Safety Focused Decisions Making Framework Phases
• Questions and Group Discussion
Introduction

• The “Tools, Practices, and Training for System Wide Safety Impact Prediction Project” was commissioned to analyze the use of currently available safety planning tools

• The end product, the Safety Focused Decision Making Guide, was informed by four related research endeavors concerned with safety planning tools (depicted to the right)
Safety Focused Decision Making Framework Overview

1. Identify Potential Projects and Programs
2. Narrow & Select Mix of Projects and Programs
3. Predict Safety Outcomes of Projects and Programs
4. Implement Projects and Programs
5. Achieve State and Local Safety Targets

Collect & Analyze data
Modify Projects and Programs as Needed
A number of nationally available safety analysis tools currently exist to support roadway safety performance planning and decision making.

The representative list of tools in the table have been directly supported by FHWA.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Primary Purpose</th>
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<tr>
<td>Crash Modification Factors (CMF) Clearinghouse</td>
<td>This web-based repository provides information on all documented CMFs and Crash Reduction Factors (CRFs) in a central location to help transportation professionals properly estimate the crash reduction of selected countermeasures when applied to projects.</td>
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<td>FHWA Geographic Information System (GIS) Tools</td>
<td>GIS software links safety event data such as crashes and geographic data such as roads and roadway features to allow for advanced spatial analysis and mapping.</td>
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<td>Highway Safety Manual (HSM)</td>
<td>The HSM provides a framework for safety that aids practitioners in performing data analysis, selecting countermeasures, prioritizing projects, comparing alternatives, and quantifying and predicting the safety performance of roadway elements during the planning, design, construction, and operation phases of project development.</td>
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<tr>
<td>Safety Analyst</td>
<td>Safety Analyst is a set of computerized analytical tools to identify safety improvement needs and supports use of cost-effectiveness analysis to develop a system-wide program of site-specific improvement projects.</td>
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<td>Systemic Safety Project Selection Tool</td>
<td>The Systemic Safety Project Selection Tool involves widely implemented improvements based on high-risk roadway features correlated with specific severe crash types. It helps agencies broaden their traffic safety efforts and consider risk as well as crash history when identifying where to make low-cost safety improvements.</td>
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Safety Planning Tool Links:
- **CMF** - [http://www.cmfclearinghouse.org/](http://www.cmfclearinghouse.org/)
Identify Potential Projects and Programs

Identifying the right projects and programs to undertake at the appropriate times is a necessary component to improving transportation safety.

**Applying Safety Planning Tools**

GIS data can be used by states and MPOs by leveraging the geo-coded information in the identification of hot-spot locations where safety improvement projects could have a large/immediate impact.

**Notable Practice Case Study**

Data-driven decision making and continuous review of performance is deeply ingrained in Washington State’s Department of Transportation.
Narrow and Select Mix of Projects and Programs

Using a formal prioritization process to select the projects/programs most important to complete in the short and longer term is the basis of an effective planning environment.

Applying Safety Planning Tools

Systemic Approach provides a comprehensive method for safety planning and implementation that supplements and compliments traditional site analysis.

Notable Practice Case Study

The Atlanta Regional Commission (ARC) has developed an approach to evaluating potential projects and places projects into one of four tiers to allow for comparison.

http://www.atlantaregional.com/plan2040
FHWA encourages states and MPOs to take a holistic approach to safety planning and begin using available tools to predict outcomes at the programmatic level.

**Applying Safety Planning Tools**

CMF Clearinghouse provides transportation professionals with a web-based repository of CMFs and associated documents/training materials to support the proper application of CMFs and accurately predict outcomes.

**Notable Practice Case Study**

Missouri’s SHSP identifies strategies in the areas of education, enforcement, engineering, and public policy that were selected based on documented evidence supporting their effectiveness.

Implement Projects and Programs

It is necessary to develop a detailed implementation plan that explicitly defines timelines, budget, performance measures, and roles/responsibilities to achieve desired outcomes.

Applying Safety Planning Tools
CMF Clearinghouse provides transportation professionals with a web-based repository of CMFs and associated documents/training materials to support the proper application of CMFs and accurately predict outcomes.

Notable Practice Case Study
Missouri’s SHSP identifies strategies in the areas of education, enforcement, engineering, and public policy that were selected based on documented evidence supporting their effectiveness.

http://safety.fhwa.dot.gov/hsip/tsp/fhwahp09043/
Achieve State and Local Safety Targets

Once projects/programs are underway, states and MPOs with strong performance management frameworks track progress toward achieving their goals and intended safety outcomes through the use of reporting tools such as performance dashboards.

Applying Safety Planning Tools

Safety Analyst has a Countermeasure Evaluation Tool, which provides an analysis of implementation success, performing before/after evaluations using the Empirical Bayes (EB) approach.

Notable Practice Case Study

NCDOT’s Executive Dashboard is used to track progress against strategic goals and enables NCDOT’s leaders to see trends over time, allowing them to make data-driven decisions based on performance.

https://apps.dot.state.nc.us/dot/dashboard/default.aspx
Continuous Program Improvement Cycle

Data-driven decision making within a performance management framework is something that has become increasingly important in today’s transportation environment.

Cultivating a Safer Environment

The two keys to achieving the desired future state of transportation safety planning lay within the establishment and acceptance of performance management frameworks across state DOTs and MPOs, and the identification and collection of robust data sets that are used as inputs to the various safety planning tools.

Actions Necessary for Improvement

By emphasizing a performance management framework as a method to guide decision making, state DOTs and MPOs can measure and refine their actions en route to accomplishing their strategic goals and objectives rather than waiting until after programs have already run their course.
Questions and Group Discussion

Discussion Prompts:

• What safety planning tools, practices, and training work well for you?

• How have you overcome challenges related to either the application of available tools or established safety planning processes?

• How are best practices shared with your peers?