

SAFETY TARGETS AND THE STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

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SHSP Overview

- AASHTO published Strategic Highway Safety in 1997 with 22 emphasis areas
 - » States encouraged to develop their own plans
- In 2005 Congress passed highway bill; reaffirmed
 - » Required states to develop SHSP by October 1, 2007
 - » All 50 states and District of Columbia complied
- Based on success in Europe and Australia

SHSP Overview

- Major component and requirement of the Highway Safety Improvement Program (HSIP)
- Statewide-coordinated safety plan with comprehensive framework for reducing traffic fatalities and serious injuries on ALL public roads
- Requirement to develop, implement, update, and evaluate on a regular basis

Safety Management Task Force

- Originally established in the mid-1990's
- Reconvened in October 2001
 - » Agencies with highway safety related responsibilities
 - » Coordinate highway safety related activities and programs
 - » Speak with one voice for greater safety impact
- Helped develop first SHSP in 2007
 - » Established a goal of Zero Highway Fatalities

Safety Management Task Force

➤ Revamped in June 2009

» Focused on SHSP Implementation & Evaluation

➤ Mission

» *Promote effective cooperation, participation, communication and coordination among affected agencies, as well as to provide interagency support in the development of a Statewide Strategic Highway Safety Plan*

Toward Zero Deaths (TZD)

- SHSP Vision
 - » Zero Fatalities...Saving One Life at a Time
- SHSP goal
 - » Reduce fatalities by half by 2030
- SHSP goals versus safety targets
 - » SHSP goals span multiple years and are often ambitious
 - » Same agencies involved in safety targets also set SHSP goals



Safety Targets

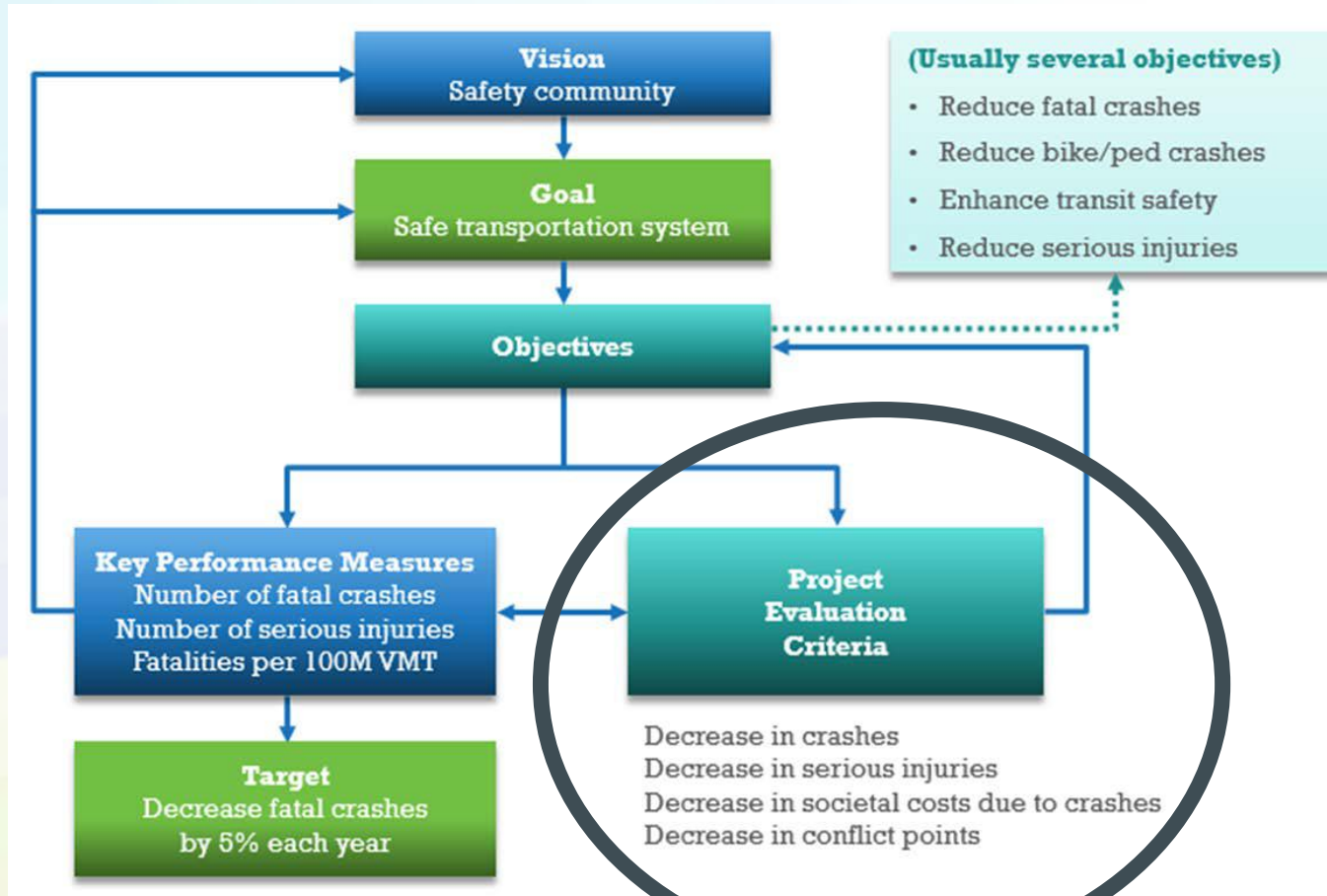
According the Safety Performance Management Final Rule MPOs must...

- Set annual safety targets for their planning areas *or*
- Plan and program projects that support adopted State safety targets

Five targets are required...

- Fatality Number
- Fatality Rate
- Serious Injury Number
- Serious Injury Rate
- Number of non-motorized fatalities and non-motorized serious injuries

Meeting Safety Goals



Project Prioritization

- Need to consider how transportation projects will address safety to achieve performance targets

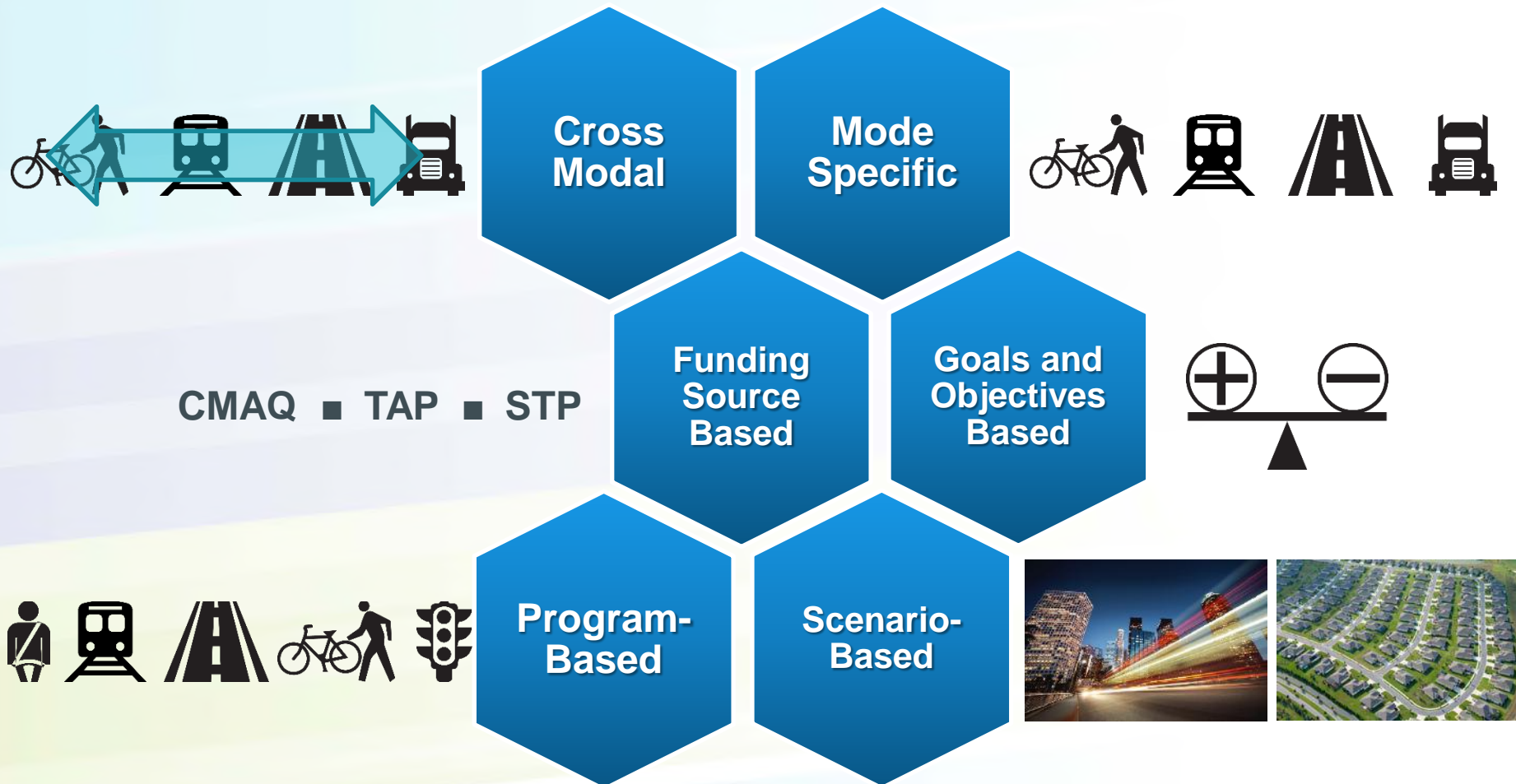


- Policy Considerations - **Qualitative approach**
 - » Does the project meet the goals outlined in the plan
 - » Does the project help meet performance measures and targets
- Technical Considerations - **Quantitative approach**
 - » Does the project address a location with potential for safety improvement

Challenges to Using Safety as a Prioritization Factor

- Belief that safety will be handled later – in project design phase
- Assumption that by following design references (i.e., AASHTO Green Book) roadways are optimized to reduce fatalities and serious injuries
- Lack of tool to predict safety benefits of future transportation projects in Travel Demand Models
- Lack of knowledge/experience using new tools such as
 - » Highway Safety Manual
 - » Crash Modification Factors Clearinghouse
- Prioritization methods are often siloed by mode or program and do not attempt to use safety as a factor for all projects

Project Prioritization Approaches



When to Address Safety in Project Prioritization?

**Metropolitan
Transportation Plan**

**Transportation
Improvement Program**

**Corridor/Special Purpose Plans
(Bicycle/Pedestrian/Freight)**



Common Approach

Typical Approach

Provide safety points for highway projects at high-crash locations

Limitations

Usually...

- Does not include evaluation of specific safety problems
- Does not identify how project will mitigate problems
- Does not quantify proposed project's impact on safety (positive or negative)
- Not multimodal

Approaches for Prioritizing Projects Using Safety

- Network Screening
- Systemic
- Countermeasure-Based
- Complete Streets
- Mode Shift
- Benefit-Cost Analysis



Network Screening Analysis Approach – Problem Identification

➤ Basic

- » Use regional crash map to identify locations by number and/or severity of crashes

➤ Intermediate

- » Use two or more network screening methods that include traffic volume; preferable to focus only on fatal and injury crashes

➤ Advanced

- » Use Highway Safety Manual predictive method to identify locations where crashes exceed the expected number

Countermeasure-Driven Approach

➤ Draws upon body of known effective countermeasures

➤ Encourages sponsors of all types of transportation projects to integrate effective safety countermeasures as appropriate

FHWA Proven Safety Countermeasures



Mode Shift Approach

The Hidden Traffic Safety Solution:
Public Transportation



Data shows there are fewer fatalities in places with fewer vehicle miles traveled and those promoting mass transport, walking and cycling, thus reducing overall exposure.

Saving Lives with Sustainable Transport,
World Resources Institute, 2012.

Other Considerations for Successfully Integrating Safety into Project Prioritization/Programming

- Make sure projects maintain safety elements during project development process
- Conduct project evaluation so results can inform future project decisions



Resources

- The DOT may be able to provide MPOs with safety analysis
- Local Technical Assistance Program or DOT may be able to provide training



MPO Guidebook for Using Safety as a Project Prioritization Factor

Developed for
Federal Highway Administration

August 2016



U.S. Department of Transportation
Federal Highway Administration

Guidebook will be available at:
Transportation Safety Planning webpage under Publications
fhwa.dot.gov/planning/transportation_safety_planning/publications

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