Performance Measures (PMs)

- MAP-21 requires States to have an approved Highway Safety Plan (HSP), containing 15 core outcome measures to receive Section 402 State and Community Highway Safety Grants.

- PMs (included in the HSP) must include...
  - Documentation of current safety levels;
  - Quantifiable annual performance targets; and
  - Justification for each target.
Performance Measures (PMs)

- PMs should guide investments to achieve State performance goals (or targets).

- HSPs must include PMs and targets that are evidence-based and consistent with the NHTSA/GHSA report:

- Targets, whenever reasonable, should represent an improvement from the current status rather than a simple maintenance of the current rate.
Core Outcome Measures

- C-1) Number of traffic fatalities (FARS)
- C-2) Number of serious injuries in traffic crashes (State crash data files)
- C-3) Fatalities/VMT (FARS, FHWA-HPMS)
- C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)
- C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)
- C-6) Number of speeding-related fatalities (FARS)
- C-7) Number of motorcyclist fatalities (FARS)
- C-8) Number of unhelmeted motorcyclist fatalities (FARS)
- C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)
- C-10) Number of pedestrian fatalities (FARS)
- C-11) Number of bicyclist fatalities (FARS)
Core Behavior and Activity Measures

Behavior Measure
• B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Grant Activity Measures
• A-1) Number of seat belt citations issued during grant-funded enforcement activities
• A-2) Number of impaired driving arrests made during grant-funded enforcement activities
• A-3) Number of speeding citations issued during grant-funded enforcement activities
Sample Performance Measures (Goal Statements)

- Decrease traffic fatalities 5 percent from the 2010 calendar base year total of 2,445 to 2,323 by December 31, 2013.

- Decrease incapacitating traffic injuries 8 percent from the 2010 calendar base year total of 21,501 to 19,781 by December 31, 2013.

- Decrease fatalities/VMT 5 percent from the 2010 calendar base year total of 1.25 to 1.19 by December 31, 2013.
Value of Performance Measures

**Performance Measures:**

- Augment State highway safety planning
- Direct resources to where most needed
- Connect goals to action
- Cultivate increased accountability and transparency
- Evaluate safety program progress
- Communicate priorities, results and the importance of traffic safety
Value of Performance Measures

- PMs open the door for objective, data-driven discussion on whether anticipated levels of progress are being met and what should be done to achieve highway safety goals.

- PMs offer added accountability and help to identify strategic opportunities to assist States in meeting desired safety outcomes.
• In 2008, States voluntarily agreed to include PMs with their HSPs.

• The minimum set of PMs (jointly developed by NHTSA and GHSA) address most but not all possible highway safety problem areas.
  – NHTSA works with States to develop supplemental measures for emerging problem areas (e.g., drugged, drowsy and distracted driving).
Prior to the implementation of core traffic safety PMs, no single measure was used by all States:

- States used different outcome measures to assess progress

- Just 2 measures were used half of the States
  - Observed day-time seat belt use rates
  - Fatalities per 100 million VMT

- States differed in how to normalize crashes
  - E.g. rates per VMT, per population, per registered driver

- States differed in what to count
  - E.g., all crashes, injury crashes, serious injury crashes and/or fatal crashes) and

- **Standardized core PMs let everyone measure progress against the same parameters.**
• The process for setting targets in the HSP must be based on an analysis of data trends, anticipated levels of effort, situational factors (e.g., economy, VMT) and a resource allocation assessment.

• HSPs must include an explanation of why each target is appropriate and evidence based.

• Baselines serve as points of reference to measure progress.
Target Setting (baselines)

• Baselines serve as points of reference to measure progress.

• Each approach for establishing a baseline has strengths and limitations.

• States should use the most recent FARS data for baselines (excluding serious injury and belt use rate measures).
  
  • For example, States should use 2010-2014 FARS data if using a 5-year moving average baseline in their FY17 HSP.
Target Setting

• States use a variety of approaches to select targets, with the most common practice being consensus selection among informed partners.
  • Targets should be reasonable and acceptable to stakeholders working toward safety goals.

• Other methodologies for target selection include, but are not limited to, statistical forecasting or selecting targets mandated by policymakers and prevailing highway safety strategies e.g. TZD.

• Information used to establish PMs guides States to focus resources on areas likely to have the most meaningful impacts.
Target Setting

• Innovative and promising strategies are encouraged when a clear data-driven safety need has been identified.

• PMs should be linked to the anticipated success of the countermeasures or strategies selected and funded in the HSP.

  – (23 CRF 1200.11(b))
Supplemental Performance Measures

- Using supplemental PMs (beyond the minimum required) is needed for emphasis areas that are included in the HSP and where an agreed upon measure has not been established (e.g. older drivers).

- States may project and assess progress for supplemental PMs using appropriate data sources which may include self-reported or observed survey behaviors.

- Supplemental/state-developed PMs should specifically relate to a program area and be associated with a project.
NHTSA and the Federal Highway Administration (FHWA) are harmonizing safety PMs common to both agencies:

- Total fatalities
- Total serious injuries
- Fatality rate measures

Common measures within the State HSP and the State highway safety improvement program (HSIP) shall be defined identically.

This coordination will promote uniform measures of progress used by both agencies.
Promising State Target Setting Practices

- Conduct comprehensive problem identification.
  - Query data sources to identify who (e.g., age, sex, gender) is crashing and what (e.g., single vehicle fixed object crash, multiple vehicle crash, pedestrian-motor vehicle crash) specifically occurred.

- Select projects that are aligned with the State problem areas.

- Tie all projects back to a specific PM.

- Fund programs/projects that are proven effective.
Promising State Target Setting Practices

• Make allowances for community-based approaches giving communities flexibility to structure highway safety programs to meet localized needs consistent with the broader/statewide goals.

• Coordinate with a diverse group of partners on the problem identification process.

• Consistently monitor progress and program effectiveness to adjust and amend strategies as needed.
Considerations

• While MAP-21 codified a standard set of PMs, there are no standardized methodologies for how States set their targets for these measures.

• States with few traffic fatalities may have difficulty in projecting future year trends.
  – When the numbers are disaggregated by fatality type, such as pedestrian, the counts become even smaller.
Considerations

• There are many factors that contribute to the success or failure of a State to meet its highway safety targets.

• PMs should not be used to compare localities or States to one another, since they may differ substantially on factors that affect traffic safety performance.

  – The overall level of crashes and injuries are affected by factors such as population, traffic volumes, fuel prices, urbanization, per capita alcohol/drug consumption, general economic conditions and the political environment.
Recap

- Establish targets based on problem ID.

- Employ case-study like analyses that examines local conditions and countermeasures (e.g., laws, enforcement and infrastructure) to establish meaningful targets.

- Use PMs (targets) to guide efforts and select projects that have a higher likelihood of reducing fatalities and injuries.
  
  - PMs serve to limit projects unsupported by evidence or positive safety outcomes.
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