

Comparative Analysis of EMS Components of State Strategic Highway Safety Plans: Where is EMS?

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ABSTRACT

Objective: To identify the scope and nature of the EMS components of the SHSPs developed by each State.

Methodology: State SHSPs, written subsequent to SAFETEA-LU and the enabling legislation (Subtitle D-Highway Safety, SEC 1401 Highway Safety Improvement Program, Section 148, title 23 United States Code), from April 5, 2006 to January 8, 2008, were identified via electronic search of State government, other transportation information resources and web sites. Each SHSP was searched for EMS representation, an EMS section, and any references to EMS. The identified EMS components were categorized and compared.

Results: Study identified plans for 50/50 States, 29/50 had no EMS specified section, 4/50 had an EMS section $\geq 10\%$ of the total document, the remainder had $< 10\%$ focused on EMS. SHSPs varied in length from 1 page to >120 pages. EMS representation was not identified on all SHSP development committees. In SHSPs with an EMS section, categories addressed were not consistent across plans. Some focused on EMS training, dispatch and response, others on funding and other issues. No field of EMS focus was common to all plans.

Conclusion: The State SHSPs evaluated reflected a varied involvement of EMS representatives, identification of diverse EMS priorities, and varied EMS-related highway safety issues. Although regional variation is expected, involvement of key EMS stakeholders should be standard in the basic development of SHSP. Consideration of uniform recommendations for the core aspects of EMS SHSP components could enhance a more substantive role of EMS in these State plans.

BACKGROUND

All States are mandated to generate a Strategic Highway Safety Plan (SHSP) to respond to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and to be effective October 1st, 2007. SAFETEA-LU, enacted August 10, 2005, is the largest highway program effective in the history of the Nation. The State-developed SHSP is a new Federal requirement of the SAFETEA-LU, amended Section 148 of title 23 of United States Code Section 1401 - Highway Safety Improvement Program, part of Subtitle D Highway Safety. The SHSPs are required to encompass the 4 'E's: Engineering, Enforcement, Education and Emergency Medical Services (EMS). Key emphasis areas are recommended to be developed with input from representatives of the 4 'E's. SAFETEA-LU SHSP guidance, April 5, 2006, recommend States establish multi-agency, multidisciplinary development committees for SHSPs. NHTSA Uniform Guidelines for State Highway Safety Programs, promulgated by Section 402 of Title 23 of the United States Code, offer direction in formulating state's highway safety efforts that are supported with section 402 grant funds. EMS is addressed as Subsection 11 of these guidelines (Table 1). Also, the American Association of State Highway and Transportation Officials (AASHTO) have proscribed a Strategic Highway Safety Plan since 1998. In their guidelines there are 6 core elements; Drivers, Special Users/Non motorized, Vehicles, Highways, Emergency Medical Services & Management. These 6 core AASHTO elements are addressed by 22 goals, EMS is represented by Goal 20 (Table 2). States are required to have developed and implemented a SHSP by 10/1/06 to obligate funds under Section 148. Prior to developing a SHSP, a State may only obligate Highway Safety Improvement Program (HSIP) funds for projects that were previously eligible under Sections 130 and 152.

BACKGROUND (contd)

States that have not developed a SHSP by 10/1/07 will have their HSIP apportionments "capped" at the FY 2007 level for each subsequent fiscal year until a SHSP is developed. Some states had developed SHSP's prior to the enactment of SAFETEA-LU, including Florida, Georgia, Minnesota, Mississippi, and Missouri.

NHTSA Uniform State Highway Safety Program Guidelines: Subsection 11 – EMS

- I. RESOURCE MANAGEMENT
- II. REGULATION AND POLICY
- III. HUMAN RESOURCES AND TRAINING
- IV. TRANSPORTATION
- V. FACILITIES
- VI. COMMUNICATIONS
- VII. TRAUMA SYSTEMS
- VIII. PUBLIC INFORMATION AND EDUCATION
- IX. MEDICAL DIRECTION
- X. EVALUATION

Table 1. EMS Subsection 11 of NHTSA Uniform Guidelines for State Highway Safety Programs, promulgated by Section 402 of Title 23 of the United States Code 148

AASHTO Guidance Goal 20 - Enhancing Emergency Medical Capabilities to Increase Survivability

- Strategy 20A:** Develop and implement a model comprehensive approach that will ensure appropriate and timely response to the emergency needs of crash victims
- Strategy 20B:** Develop and implement a plan to increase education and involvement of EMS personnel in the principles of traffic safety
- Strategy 20C:** Develop and implement an emergency preparedness model in three high-incident interstate highway settings (urban, rural, and wilderness)
- Strategy 20D:** Implement and/or enhance trauma systems
- Strategy 20E:** Develop and support integrated EMS/public health/public safety information and program activities

Table 2. AASHTO Guidance - EMS Strategies

OBJECTIVE

To identify the scope and nature of the EMS components of the SAFETEA-LU mandated SHSPs, developed by each State by January 7th 2008.

METHODS

State SHSPs, written subsequent to SAFETEA-LU and the enabling legislation (Subtitle D - Highway Safety, Section 1401 Highway Safety Improvement Program, Section 148 of title 23 United States Code), guidance from April 5th 2006 to January 7th 2008, were identified via electronic search of State government, other transportation information resources and web sites. Each SHSP was searched for EMS representation, an EMS section, and any references to EMS. The identified EMS components were categorized and compared. Direct contact was made with agencies where there was a SHSP with no identified EMS representation.

RESULTS

50/50 States SHSPs were identified during the study period, of which 29/50 had no EMS specified section, 4/50 had an EMS section of $\geq 10\%$ of the total document, the remainder had $< 10\%$ of the document focused on EMS. EMS representation was not specifically identified on all SHSP development committees. In the plans with an EMS section, the categories addressed were not consistent across plans – with some focused on EMS training, dispatch and response, others on funding and other issues. No field of EMS focus was common to all plans. The four plans which had the greatest focus on EMS were Alabama, Montana, New Hampshire, and New York. These plans devoted in excess of 10% of the document to a section specific to EMS. However, the focus was very different (Table 3), and even in sections that appeared similar – such as pre-hospital training, one was focused on access to training and simplifying training, while the other focused on enhancing and advancing medical training and highway aspects of training. A number of States were identified where EMS Offices were not familiar with SHSPs, nor had they had an active role in SHSP development.

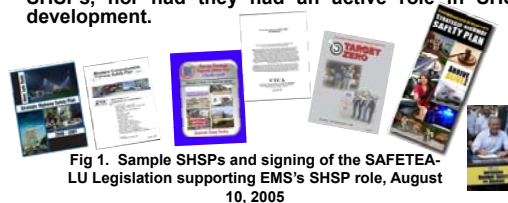


Fig 1. Sample SHSPs and signing of the SAFETEA-LU Legislation supporting EMS's SHSP role, August 10, 2005

STATE	AREA OF FOCUS
New York EMS Focused Section 6 of 43 pages	<ol style="list-style-type: none"> 1. Emergency Medical Services Dispatch Services 2. Emergency Medical Services Partnerships 3. Pre-hospital Training Programs 4. Road Condition and Incident Response 5. EMS Responder Crash Prevention
Montana EMS Focused Section 4 of 36 pages	<ol style="list-style-type: none"> 1. Establish EMS Legislation and Regulation 2. Provide EMS Funding 3. Enhance Capabilities for Medical Response to Disaster 4. Expand EMS Human Resources 5. Enhance EMS Education System 6. Expand EMS Services 7. Facilitate EMS Communications 8. Conduct EMS Public Education and Information Programs 9. Conduct Injury Prevention Public Awareness Efforts 10. Enhance Medical Direction 11. Provide Enhanced Trauma System and Facilities 12. Establish an EMS Information System 13. Evaluate and Monitor EMS Programs
Alabama EMS Focused Section 8 of 47 pages	<ol style="list-style-type: none"> 1. Identify and Analyze Performance Data 2. First Responders 3. Identify Crash Location 4. Statewide assessment and Plan 5. Improve EMS Rural Access
New Hampshire EMS Focused Section 8 of 85 pages	<ol style="list-style-type: none"> 1. Increase Availability of Communication 2. Better Identifying Crash Location 3. Educated Public on Responsibility After MVC 4. Prevent Additional Injuries at MVC

Table 3. EMS Areas of Focus in Strategic Highway Safety Plans with greater than 10 % of the document focused on EMS

DISCUSSION

The SHSP guidance, includes EMS Directors as potential stakeholders or partners, and states that SHSPs should "List the agencies that were consulted in the development of the SHSP and are crucial in achieving the SHSP goals. It is expected that States will include a variety of additional stakeholders." However not all SHSPs reviewed in this study specifically listed EMS Directors as collaborators. In some regions the local EMS offices were not aware of the SHSP process. Also, EMS in some ways has historically been underutilized by highway safety professionals when identifying safety partners, emphasis areas, and strategies. The SHSP is a valuable tool for integrating EMS with Highway Safety infrastructure and expertise in a more formal fashion – as EMS itself stands to benefit from having a closer and more formal relationship with highway safety. This is important for EMS given that transportation and highway safety is also one of the most serious challenges for EMS operations, and there is substantial funding attached to SHSP.

LIMITATIONS

- This study was limited by the SHSPs available on the public access internet in both draft and complete form
- The study period ended in January 2008, 3 months after to the mandatory date of implementation for the SHSP. There may have been subsequent revisions of the draft documents that were included in this study that may have impacted the EMS components

➢ Given the individual State approaches to the SHSP, documentation of EMS representation may not have been as comprehensive for each SHSP even when present

CONCLUSION

The State SHSPs evaluated reflected a varied involvement of EMS representatives, identification of diverse EMS priorities, and varied EMS-related highway safety issues. Few SHSPs addressed EMS as a key focus, as required by SAFETEA-LU's 4 'E' approach.

Adherence to the uniform guidelines could provide for a more consistent and collaborative integration of EMS and highway safety. Although regional variation is expected, involvement of key EMS stakeholders should be standard in the basic development of SHSP.

Consideration of a requirement to adhere to uniform recommendations for the core aspects of EMS SHSP components could enhance a more substantive role of EMS in these State plans.

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