



**The National Association of State EMS Officials**

## **NASEMSO Highway Incident and Transportation Systems (HITS) Committee**

**2010 - 2011 HITS Project:** *Highway Mass Casualty Readiness & Response: Creating New EMS Tools for Highway Risk Assessment*

The 2010-11 HITS project has been undertaken by the National Association of State Emergency Medical Services Officials (NASEMSO) in an attempt to improve outcomes for people injured on our nation's highways. The 2008 motor coach crash in Mexican Hat, Utah, demonstrated the importance of ready access to features often taken for granted in emergency response situations, including communication ability, adequate and timely EMS response and the proximity of trauma centers. These critical features, to name a few, can be far less accessible in sparsely populated areas, which can contribute to negative outcomes for highway crash victims. Following the Mexican Hat crash, the resultant National Transportation Safety Board (NTSB) recommendations have generated new perspectives for policymakers to consider, including measuring the safety of highways in terms of emergency medical resources. Discussions with Federal Highway Administration (FHWA) officials and American Association of State Highway & Transportation Officials (AASHTO) colleagues have led to a different angle of awareness for state EMS officials. Through its HITS Committee, NASEMSO has undertaken the **Highway Mass Casualty Readiness & Response** project in an effort to maximize its potential contribution to reducing death and disability following mass casualty motor vehicle crashes.

The NTSB issued recommendations (H-09-4 and H-09-5) for the Federal Inter-Agency Committee on Emergency Medical Services (FICEMS) and the Federal Highway Administration to explore with AASHTO and NASEMSO (H-09-7 and H-09-8) various options to assist States in addressing rural safety challenges for motorcoaches. This project specifically addresses H-09-5, related to an evaluation of emergency care response to mass casualty crashes and development and dissemination of guidelines to the states. It also responds to H-09-8, which recommended the development and implementation of criteria that can be used to assess the risks of rural travel by large buses.

Approach: Define an assessment and evaluation process for today's system of emergency medical response to highway incidents with particular emphasis risk when mass casualties, i.e., crashes involving large buses or motor coaches, occur.

- 1) Develop an **Event Response Readiness Assessment tool (ERRA)** that state and local EMS agencies can use to assess their level of multidisciplinary system integration and response capability for mass casualties on highways. This assessment, when completed as a self-evaluation at the local, regional, or state

level, will provide a basis for critical programmatic decisions and point to activities that can contribute to safety as well as benchmark activity levels allowing comparison of local to local, region to region, state to state, and aggregate information. Findings from applying the assessment tool should be essential to state departments of transportation (DOTs) as safety assessments are performed and strategic highway safety plan projects are selected. Details of the project include the following:

- a. Develop ERRA using indicators of maximum integration and capability, such as adoption of incident command systems, mutual aid plans, participation in mass casualty exercises, etc.
  - b. Response capability will include local practices as outlined above, as well as regional or state level activities, such as implementation of the National Unified Goal for Traffic Incident Management.
  - c. A technical writer and a subject matter expert work group will produce the assessment tool, which will be distributed to appropriate stakeholder organizations for feedback. The work group will convene in-person two to three times and additionally via webinar or teleconference as needed. It is anticipated that the work group will consist of about 15 representatives of stakeholder groups and subject matter experts in the areas of traffic incident management, communications, emergency management, emergency medical services and other appropriate disciplines.
  - d. Conduct a rollout session followed by on-line interactive workshops to promote states' self-assessment and adoption of corrective action plans.
  - e. Disseminate assessment tool and monitor implementation (uptake, use and findings).
  - f. Conduct an annual status check and issue a report card of the states, such as has been conducted for EMS Education Agenda implementation.
  - g. Project Director, Dia Gainor, will facilitate completion of these activities, supported by Program Manager, Mary Hedges.
- 2) Demonstrate the feasibility and utility of an emergency care inventory that displays resource availability and system capacity by segment of interstates and US highways. This is accomplished by developing a working matrix of data elements, known as **Model Inventory of Emergency Care Elements (MIECE**, pronounced "mice"). If adopted by states, MIECE could contribute to a new arsenal of safety data analysis tools. MIECE is modeled after the US DOT's Model Inventory of Roadway Elements (MIRE), which is also a geographically organized resource inventory using defined characteristics and classification standards intended to contribute to risk assessment, system improvement, and sound decisions about use of routes of interest. The MIECE portion of the project will not entail the complete development of all elements in an emergency care inventory; rather, a "proof of concept" for what could emerge as a full scale project in subsequent agreements. Project details include the following:
- a. MIECE would include characteristics of the emergency care system, such as ground EMS agencies, rescue services that provide vehicle extrication,

helicopter emergency medical services, hospitals and designated trauma centers.

- b. Disseminate MIECE drafts and solicit feedback from states, especially about data collection methods in concert with their state regulatory activities.
- c. Conduct a “blue ribbon panel” assessment of feasibility and utility, to include stakeholders with companion safety data, such as MMUCC and MIRE, and representatives of Governors’ Highway Safety Representatives and state DOTs to evaluate usefulness as they implements strategic highway safety plans.
- d. Prepare a more comprehensive project description aligned with the work and findings of the national EMS assessment.
- e. Project Director, Dia Gainor, will facilitate completion of these activities, supported by Program Manager, Mary Hedges.

Deliverables (in 2010 - 2011):

- 1) First edition of integration and response capability assessment (ERRA)
- 2) First “scorecard” of state level assessment findings (using ERRA)
- 3) Draft matrix of emergency care inventory (MIECE)

Outcome/Performance Measure:

- 1) Increased number of states with evidence of emergency medical system integration and response capability (count and type of integration/involvement efforts generated by the assessment by state)
- 2) Baseline setting for comparison in future years
- 3) Ability to graphically display the Model Inventory of Emergency Care Elements (MIECE) in proof of concept, including an outline of benefits and next steps.