

FEDERAL INTERAGENCY COMMITTEE ON EMERGENCY MEDICAL SERVICES
FINAL REPORT TO THE NATIONAL TRANSPORTATION SAFETY BOARD

“Evaluate the system of emergency care response to large-scale transportation related rural accidents and, once that evaluation is completed, develop guidelines for emergency medical services response and provide those guidelines to the States.”

-NTSB SAFETY RECOMMENDATION H-09-5

Background

NTBS’s Recommendation H-09-5 includes two separate but related processes: evaluation and guideline development which are both being addressed by the Federal Interagency Committee on EMS (FICEMS). This final report summarizes the work sponsored and endorsed by FICEMS in response to the recommendation.

Initial Evaluation by Institute of Medicine Workshop

As requested by FICEMS, the National Highway Traffic Safety Administration (NHTSA) entered into a cooperative agreement with the Institute of Medicine (IOM) for their Forum on Medical and Public Health Preparedness for Catastrophic Events (the Forum) to host a workshop on evaluating the system of emergency care response to large-scale transportation related rural crashes. The Forum’s workshop summary report, *Preparedness and Response to a Rural Mass Casualty Incident: Workshop Summary*, is attached to this report.

As detailed in the workshop summary report, the Forum convened the workshop on August 3rd - 4th 2010 in Washington D.C. The objectives of the workshop were:

- Review the findings from the NTSB report of the 2008 Mexican Hat incident and discuss near- and long-term opportunities to improve response capabilities in rural settings.
- Explore existing standards, guidance and innovative models and approaches in place for state and local jurisdictions.
- Examine integrated systems approaches to improve the capability of the EMS systems to respond to large-scale rural incidents.
- Discuss opportunities to improve integration and coordination with public health systems to address challenges to national public health security, particularly in rural settings.

Evaluation and Tool Development by the National Association of State EMS Officials

Input from the IOM Forum workshop helped inform the National Association of State EMS Officials (NASEMSO) Highway Incident and Transportation Systems (HITS) Committee and their Highway Mass Casualty Readiness Project Steering Committee (Steering Committee), as they worked to define an assessment and evaluation process for today’s system of emergency medical response to highway incidents, with particular emphasis on risks related to mass casualty incidents (e.g. crashes involving large buses or motorcoaches). As requested by

FICEMS, NHTSA entered into a cooperative agreement with NASEMSO which included a specific tasking to NASEMSO in response to the NTSB Mexican Hat recommendations. Through its HITS Committee, NASEMSO undertook the Highway Mass Casualty Readiness and Response project. The project steering committee included representation from the NASEMSO Rural EMS Committee, the American Association of State Highway and Transportation Officials (AASHTO), and the Federal Highway Administration (FHWA), as well as representatives from the State of Utah EMS office and the local EMS responders from Mexican Hat, and others. The project has resulted in two important tools that are further described below. At its July meeting, the FICEMS received a report from NASEMSO and **endorsed** the following completed products:

The *EMS Incident Response and Readiness Assessment (EIRRA)* Tool and initial EIRRA scorecard (attached to this report). EIRRA is comprised of seven categories (eight when used at the statewide or regional level) of resources or activities essential to optimal emergency medical dispatch, emergency medical services (EMS) system, and emergency care/hospital response in the wake of a highway-based mass casualty incident (MCI). State and local EMS agencies can use this EIRRA Tool to assess their level of multidisciplinary system integration and response capability for MCI's on highways. This assessment, when completed 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, state to state, and aggregate information. This EIRRA tool generated enough interest in the states and prompted 28 states to voluntarily complete the initial self-assessment. This initial EIRRA "scorecard" is attached.

The *Model Inventory of Emergency Care Elements (MIECE)* demonstrates the feasibility and utility of an emergency care inventory that displays resource availability and system capacity by segment of interstates and US highways. This model inventory includes measureable 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, to name just a few. MIECE's matrix of data elements is modeled after the U.S. Department of Transportation's Model Inventory of Roadway Elements (MIRE), which is also a geographically organized resource inventory using defined characteristics intended to contribute to risk assessment, system improvement, and retrospective analysis. By measuring and scoring these EMS characteristics along segments of our nation's roadways, a visual representation of the EMS system's capabilities could be displayed. At this stage of the project, MIECE is limited to a "proof of concept" to determine if the model inventory is feasible and worth further development. It does not entail the complete development of all elements and underlying collection mechanisms in an emergency care inventory; rather it represents a proof of concept for what could emerge as a full scale project in the future.

Development of Guidelines for Emergency Medical Service Response by NASEMSO

The National Association of State EMS Officials, as part of their cooperative agreement with NHTSA, developed a set of guidelines for States and localities to use and disseminate that would:

1. Evaluate EMS system readiness;
2. Prepare to quantify resources on a geographic basis; and
3. Engage and educate partners.

The guidelines rely on EIRRA and MIECE to evaluate EMS system capabilities and allow States to apply that knowledge to improve readiness in targeted areas.

Dissemination of Guidelines to the States

Following FICEMS approval of the Guidelines for Emergency Medical Services Response and submission of the Final H-09-05 Report to NTSB, NASEMSO will disseminate the Guidelines and accompanying EIRRA and MIECE Tools to the States and Territories for application in their respective States. .