



FICEMS

Federal Interagency Committee on EMS

STRATEGIC PLAN



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Acknowledgements

This strategic planning effort was funded by the Departments of Homeland Security, Transportation and Defense.

The content was developed through a years-long collaborative process involving the Federal Interagency Committee on Emergency Medical Services (FICEMS) and its Technical Working Group (TWG).

The strategic planning process benefitted from those who commented on the plan, attended working meetings to develop goals and objectives, and provided feedback. The strategic planning process was also informed by input from the individuals who attended the March 2010 Stakeholder meeting and by the recommendations of the National EMS Advisory Council (NEMSAC).



Introduction

Congress mandated creation of the Federal Interagency Committee on Emergency Medical Services (FICEMS) in 2005,¹ in order to ensure coordination among Federal agencies supporting local, regional, State, tribal, and territorial EMS and 9-1-1 systems. The FICEMS was also created to improve the delivery of emergency medical services (EMS) throughout the nation.

The FICEMS accomplishes its mission by coordinating projects across the Federal government, predominantly for prehospital issues.² Accordingly, FICEMS responsibilities include the following:

- identifying EMS and 9-1-1 needs
- recommending new or expanded EMS and communication technologies
- identifying ways to streamline the process through which Federal agencies support EMS
- assisting local, regional, State, tribal, and territorial EMS in setting priorities
- advising, consulting, and making recommendations on matters related to implementation of coordinated State EMS programs

The conduct of the FICEMS activities is the responsibility of three organizational bodies: the FICEMS members, the Technical Working Group (TWG), and committees.³ The FICEMS is comprised of representatives from the Departments of Homeland Security (DHS), Transportation, Health and Human Services, and Defense, as well as the Federal Communications Commission and one State EMS director.

¹ FICEMS was statutorily created by the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005 (SAFETEA-LU) and codified in 42 U.S.C. § 300d-4. FICEMS is a Federal coordinating committee, comprising senior executive leadership.

² Prehospital issues involve initial medical care given to a patient by emergency medical services workers before the patient reaches the hospital emergency department.

³ Six committees currently support the work of FICEMS through the TWG: Assessment, Data and Research, Education and Workforce, Medical Oversight, Preparedness, and Safety.



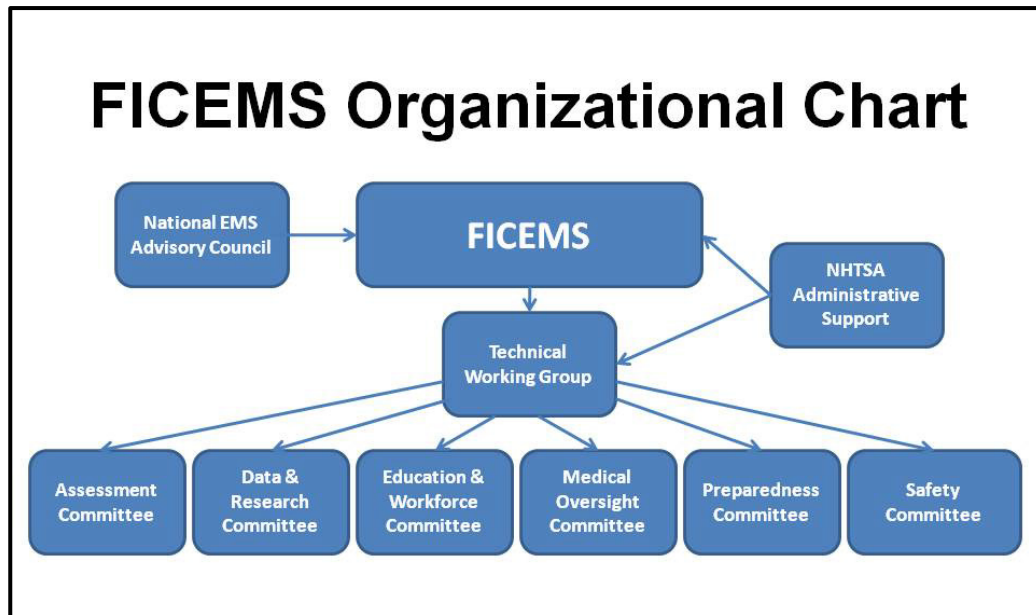


Figure 1. Current FICEMS organization

The TWG is a working body of entities that sit on the FICEMS. The TWG meets monthly and coordinates much of the day-to-day EMS activities of the Federal government. Six committees currently support the work of the FICEMS by providing specialized expertise to both the TWG and FICEMS.⁴ Implementation of this strategic plan may necessitate a revision of the TWG committee structure.

In addition, the National Emergency Medical Services Advisory Council (NEMSAC) provides advice and recommendations to FICEMS from a non-federal perspective. NEMSAC is a Federal Advisory Council established by statute consisting of 25 non-Federal EMS experts who advise both the FICEMS and the Secretary of Transportation on matters related to EMS. By statute, the National Highway Traffic Safety Administration (NHTSA) Office of EMS provides the FICEMS primary administrative support, including scheduling meetings, setting agendas, keeping records, and producing reports. Currently the director of NHTSA's Office of Emergency Medical Services chairs the TWG.

⁴ See note 3 *supra*.

Given the FICEMS's significant responsibilities, it is essential that the organization have a five-year strategic plan. This strategic plan is a shared vision among Federal agencies that support EMS. Once implemented, an overarching strategic plan for the FICEMS should help to improve the federal support of local, regional, State, tribal, and territorial EMS and 9-1-1 systems and facilitate their collective mission of saving lives.



Strategic Planning Methodology

The TWG developed all components of the FICEMS strategic plan in facilitated sessions. The Homeland Security Studies and Analysis Institute, a federally funded research and development center for DHS, supported the sessions through background research, interviews with FICEMS stakeholders, and facilitation of in-person working meetings.

Development of Mission and Vision Statements

The first step in the development of the strategic plan was to determine the mission and vision statements of FICEMS. The adopted statements are foundational pieces of the strategic plan. They provide an “anchor” for the strategic goals and objectives that appear in the strategic plan. The adopted statements are:

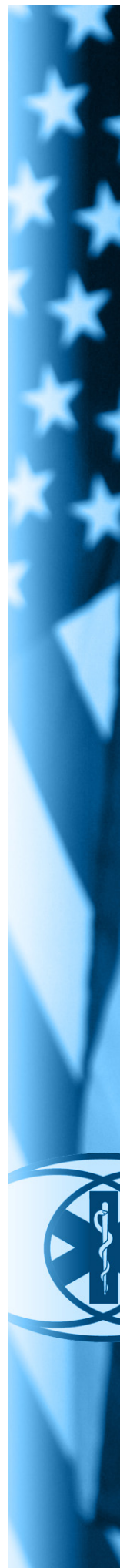
Vision statement: A Federal interagency committee that enhances coordination and ensures the strategic alignment of EMS priorities among Federal agencies to ensure quality patient care

Mission statement: Ensure coordination among Federal agencies supporting local, regional, State, tribal, and territorial emergency medical services and 9-1-1 systems, to improve the delivery of EMS services throughout the nation

Development of Strategic Goals and Objectives

After the adoption of the mission and vision statements, the strategic planning team completed a series of interviews with TWG members and committee chairs. Interviewees provided their perspectives on the trajectory of the FICEMS over the next five years. In addition to suggesting strategic goals and objectives for the FICEMS, interviewees expressed their views on the future activities of the committee. They identified emerging mission areas and challenges that might confront the FICEMS. The strategic planning team conducted all interviews on an anonymous basis.

The strategic planning team compared the results of interviews with the TWG members and committee chairs with reports from public meetings with EMS practitioners and in particular,



recommendations from the National EMS Advisory Council.⁵ The comparison identified the most important topics for the strategic plan to address. The strategic planning team developed 10 draft strategic goals before an in-person TWG meeting. The team then facilitated agreement among the TWG members on the basic language for one overarching goal and six strategic goals. The TWG asked the FICEMS members for comments on the strategic goals before developing accompanying objectives.

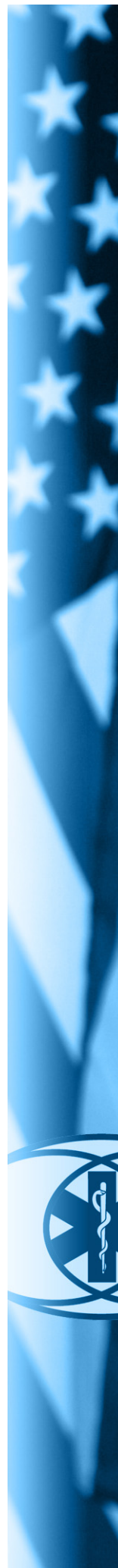
With the approval of the FICEMS members, the TWG conducted two in-person meetings to develop objectives (or action items) for the strategic plan. Prior to the two TWG meetings, the strategic planning team developed draft objectives for the TWG members to consider. The team then facilitated agreement among the TWG members through the cooperative development of 30 objectives for the FICEMS.

The FICEMS Strategic Plan

This strategic plan presents the agreed-upon mission and vision statements, strategic goals, and accompanying objectives. The plan also includes a sample traceability matrix (appendix B) to demonstrate how objectives map to the FICEMS purposes as outlined in the statute. Together, these materials describe the starting point and optimal end state of the FICEMS's efforts over the next five years. To provide a practical means to reach that end state, the FICEMS will eventually describe a detailed path forward for each stated goal. Appendix A is a template for a tracking and monitoring plan that the FICEMS can use to produce a detailed implementation plan.⁶

⁵ The strategic planning team examined minutes of the March 2010 FICEMS National EMS Stakeholders Meeting as well as all recommendations from NEMSAC to FICEMS between 2009 and 2013. The team examined NEMSAC meeting minutes from January, June, and September 2009; October and December 2010; February, April, and September 2011; March, May, and August 2012; and January and May 2013.

⁶ The template is in RACI (Responsible, Accountable, Consulted, and Informed) matrix format. RACI matrices are a way of presenting roles and responsibilities for a goal.



FICEMS Vision Statement

A Federal interagency committee that enhances coordination and ensures the strategic alignment of EMS priorities among Federal agencies to ensure quality patient care

FICEMS Mission Statement

Ensure coordination among Federal agencies supporting local, regional, State, tribal, and territorial emergency medical services and 9-1-1 systems to improve the delivery of EMS services throughout the nation

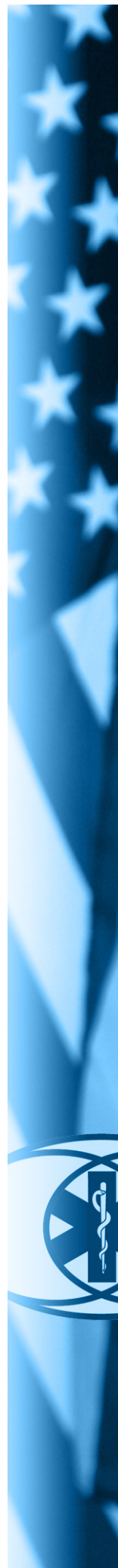


Overarching Goal

The FICEMS will work to achieve the six EMS system goals described in this plan by coordinating interagency policies, programming, and messaging, as well as soliciting and integrating stakeholder input from across the EMS community.

This plan is designed to help the FICEMS achieve its mission and vision by ensuring that FICEMS coordinates interagency policies, programming, and messaging, as well as solicits and integrates stakeholder input. In addition to this overarching goal, FICEMS identified six strategic goals, which embody actions the committee should take in the next five years. Those strategic goals are:

- coordinated, regionalized, and accountable EMS and 9-1-1 systems that provide safe, high-quality care
- data-driven and evidence-based EMS systems that promote improved patient care quality
- EMS systems fully integrated into State, territorial, local, tribal, regional, and federal preparedness planning, response, and recovery
- EMS systems that are sustainable, forward looking, and integrated with the evolving health care system
- an EMS culture in which safety considerations for patients, providers, and the community permeate the full spectrum of activities
- a well-educated and uniformly credentialed EMS workforce



Goal 1

Coordinated, regionalized, and accountable EMS and 9-1-1 systems that provide safe, high-quality care

Objective 1.1: Identify and promote the development and use of EMS performance measures and benchmarks

The FICEMS can cultivate accountability through the establishment of defined, accepted, and measurable performance measures and benchmarks. The various constituent pieces of EMS can then be assessed according to these universal metrics, and the results of such standardized assessments can be provided to the public. Doing so fosters an atmosphere of accountability.⁷ Currently, immense differences exist across EMS systems, hindering any effort to examine their performances comprehensively. The development of standardized measures and benchmarks is essential to the future of EMS. Such metrics must be firmly founded upon objective data. Objective data can be found in the National EMS Information System (NEMSIS), which combines and standardizes EMS-related data from across the nation.⁸ NEMSAC explicitly cites the establishment of performance measures as a positive output of the use of NEMSIS data: “Regional, State, and national data exchanges will be able to measure and

⁷ Institute of Medicine, *Emergency Medical Services: At the Crossroads* (Washington: National Academies Press, 2007), 78-85.

⁸ NEMSAC, “NEMSIS: Achieving its Full Potential for Advancing Healthcare” (January 30, 2013), 1. Available at <http://ems.gov/pdf/nemsac/2013/NEMSAC-FinalAdvisoryNEMSIS.pdf>; accessed June 12, 2013.



benchmark essential healthcare metrics. ... Such healthcare benchmarks will be created by aggregating data and employing census-tract based analyses.”⁹

Objective 1.2: Promote the comprehensive identification and dissemination of best practices in regionalized EMS and emergency medical care, including treatment for time-critical and sensitive conditions

Regionalization is an important feature of EMS systems. For example, a geographic region such as a metropolitan area may be divided into several service areas for trauma, heart attacks, or strokes.¹⁰ Patients are transported to the most appropriate facility, based on both geography and the nature of the emergency.¹¹ The establishment of clearly and practically defined regions is essential. As the grouping of areas with divergent characteristics and needs can be counterproductive, the FICEMS will encourage effective but feasible regionalization.¹² Effective practices in this arena have been developed and refined in certain areas of EMS, particularly trauma. These lessons learned should be identified and shared across the EMS community.

Objective 1.3: Promote measurement and reporting of the relationship between EMS care and outcomes, especially for time-critical and sensitive conditions

There is frequently a lack of evidence about the effect of current EMS practices on patient outcomes.¹³ The use of rigorous and scientifically valid performance measures, however, can play a major role in improving patient health outcomes.¹⁴ Before such performance measures

⁹ Ibid., 6.

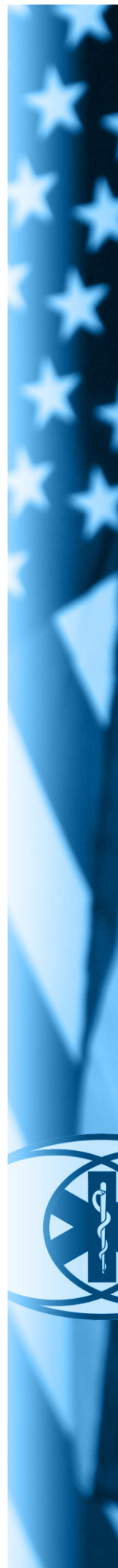
¹⁰ Institute of Medicine, *Emergency Medical Services: At the Crossroads*, 94-95.

¹¹ Institute of Medicine, “The Future of Emergency Care in the United States Health System,” *Academic Emergency Medicine* 13, issue 10 (June 28, 2008): 1084. Available at <http://onlinelibrary.wiley.com/doi/10.1197/j.aem.2006.07.011/pdf>; last accessed June 5, 2013.

¹² FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 20.

¹³ “Progress of Evidence-Based Guidelines for Prehospital Emergency Care.” Department of Transportation, NHTSA (undated), http://www.ems.gov/pdf/2012/EBG_Project_Overview_Dec2011.pdf.

¹⁴ Peter J. Pronovost and Richard Lilford, “A Road Map for Improving the Performance of Performance Measures,” *Health Affairs* 30, issue 4 (April 2011): 569-573.



can be effective, the link between measuring, reporting, and quality improvement must be stressed. Researchers must prioritize what to measure, and health care practitioners must understand the importance of accurate and timely reporting.¹⁵ The FICEMS can help promote such best practices as the integration of prehospital and hospital data. Promotion of such integration is vital, particularly with respect to time-critical and sensitive conditions such as cardiac arrest and stroke.¹⁶

Objective 1.4: Identify and promote best practices to reduce regional disparities in care, including supporting States in improving data quality

To address disparities in care, the FICEMS will first support the collection of reliable data at the State level. Without reliable data, researchers cannot make informed recommendations about how to reduce inequalities in EMS care and practices. Improving data quality will be difficult, as EMS services operate in widely varying fashions. EMS providers can be full time or volunteer as well as public or for profit.¹⁷ The paucity of national measures and performance standards may contribute to differences in care throughout the nation. The FICEMS can work to reduce such disparities.

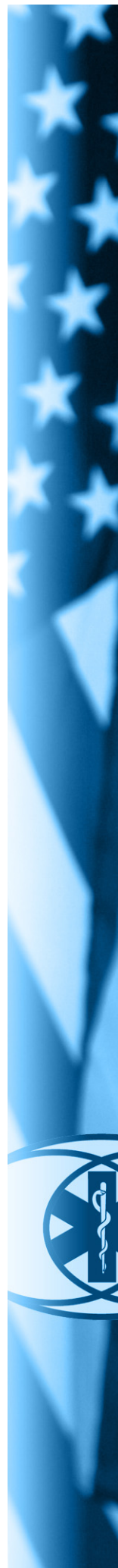
Objective 1.5: Develop partnerships with State regulatory agencies to promote regionalized and accountable care systems

Regionalization brings multiple autonomous EMS agencies together into one system. In a regionalized structure, the disparate components of an EMS system in a certain geographic region must function as a unit. Partnerships with State regulatory agencies are necessary to achieve regionalization and accountability because States regulate and support EMS within

¹⁵ NEMSAC, “NEMSIS,” 3.

¹⁶ Ibid.

¹⁷ Institute of Medicine, “Future of Emergency Care,” 1082.



their boundaries.¹⁸ The FICEMS will work to study effective regionalization arrangements and will share those results with EMS agencies at the State and local levels.¹⁹

¹⁸ Ibid., 1084.

¹⁹ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 14.



Goal 2

Data-driven and evidence-based EMS systems that promote improved patient care quality

Objective 2.1: Support the development, implementation, and evaluation of evidence-based guidelines (EBGs) according to the National Prehospital EBG Model Process

Data collection and research allow for the creation of defensible EBGs, which direct the performance of EMS systems.²⁰ Guidelines with a sound foundation of data and research allow for improved coordination of patient care, increased effectiveness of workforce training, and greater integration of the prehospital and hospital systems.²¹ In a report released in 2006, the Institute of Medicine (IOM) Committee on the Future of Emergency Medical Care recommended the creation of a body that would devise a model for creating EBGs. In response with this recommendation, the NEMSAC and the FICEMS established a panel to examine existing methods for the formation of EBG creation and to propose its own model for EBG development in the prehospital realm.²² This panel produced an eight-step model, providing a clear framework for EBG creation. NHTSA and the Emergency Medical Services for Children program supported projects demonstrating the implementation of EBGs. The FICEMS can build on these efforts to mature EBGs.

²⁰ NEMSAC Recommendations to FICEMS, 1.

²¹ NEMSAC, “NEMSIS,” 3.

²² Eddy S. Lang, Daniel W. Spaite, et al., “A National Model for Developing, Implementing, and Evaluating Evidence-Based Guidelines for Prehospital Care,” *Academic Emergency Medicine* 19, issue 2 (February 2012): 201-209.



Objective 2.2: Promote standardization and quality improvement of prehospital EMS data by supporting the adoption and implementation of NEMSIS-compliant systems

EMS systems require a solid foundation of data and research. Such data must be both standardized and accessible.²³ Standardized and accessible data are particularly essential in the prehospital environment, as aspects of prehospital activities, such as the stabilization and movement of patients, have notable effects on final patient outcomes.²⁴ One of the chief purposes of NEMSIS is precisely this nationwide data standardization. NEMSIS should therefore be a primary tool of the FICEMS in its support of this effort.²⁵ The FICEMS will encourage the collection of data that are reliable and relevant to the prehospital environment in areas such as the treatment and transportation of patients.²⁶

Objective 2.3: Develop relationships with Federal and non-Federal stakeholders to support the development of scientific evidence for prehospital care

Stakeholders across the EMS community have a role in supporting the development of scientifically rigorous evidence for prehospital care. It is the role of the FICEMS to establish relationships with these stakeholders in pursuit of this objective. In 2006, the IOM stated that “there is little or no scientific evidence to support many widely employed EMS clinical procedures and system design features,” including rapid sequence intubation and cardiac resuscitation.²⁷ The IOM argues that the lack of available data on prehospital care discourages research and delays the development of effective performance measures. Although the evidence base for prehospital care is growing somewhat, considerable variation in response approaches

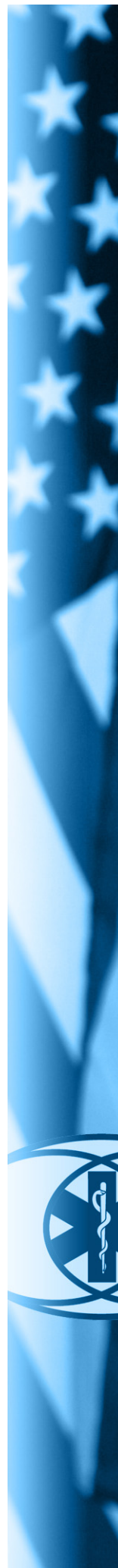
²³ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 42.

²⁴ NEMSAC, “NEMSIS,” 3.

²⁵ Ibid., 1.

²⁶ Ibid., 3.

²⁷ IOM, *Emergency Medical Services: At the Crossroads*, 42.



still exists. Additionally, the timeliness of implementation of new knowledge among EMS systems varies considerably.²⁸

Objective 2.4: Improve linkages between NEMSIS data and other databases, registries, or other sources to measure system effectiveness and improve clinical outcomes

NEMSIS must be integrated with other data sources to produce a robust and dynamic information system. NEMSAC has urged the FICEMS and NHTSA to further the integration of EMS illness, fatality, and injury databases across agencies at the national level.²⁹ NEMSAC has also emphasized the necessity of data linkages and bi-directional data flow.³⁰ At the State level, data connectivity among EMS stakeholders is often lacking or nonexistent. FICEMS will promote the integration of local NEMSIS-compliant data with State data sources, such as police reports and hospital data. Such links will enable enhanced research efforts and provide a broader perspective on emergency health events, among other benefits.³¹ Potential partners in this enhanced data connection with NEMSIS include Health Level Seven International data, the National Trauma Database, and the Cardiac Arrest Registry.

Objective 2.5: Promote the evaluation of the characteristics of EMS systems that are associated with high-quality care and improved patient outcomes

Although EMS systems are frequently a patient's entry point into the health care system, the performance of most local EMS systems is not routinely monitored or well documented.³² A culture of evaluation and the development of key performance indicators for EMS would be instructive for EMS systems. Such performance measures could assess the performance of EMS

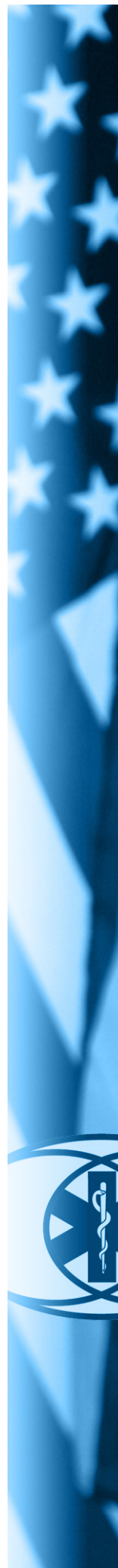
²⁸ "Progress of Evidence-Based Guidelines for Prehospital Emergency Care." Department of Transportation, NHTSA (undated), http://www.ems.gov/pdf/2012/EBG_Project_Overview_Dec2011.pdf.

²⁹ NEMSAC Recommendations to FICEMS, 1.

³⁰ This data flow should occur among EMS personnel and clinics, public health agencies, human services providers, and accountable care agencies.

³¹ NEMSAC, "NEMSIS," 8.

³² NEMSAC, "EMS Makes a Difference: Improved clinical outcomes and downstream healthcare savings" (December 2009), 15. Available at <http://www.ems.gov/pdf/nemsac-dec2009.pdf>; accessed June 12, 2013.



systems, as well as benchmarking performance against State and national performance metrics.³³

Objective 2.6: Explore the use of technology that enables enhanced information sharing for increased situational awareness, operational efficiency, and scene safety

Enhanced sharing of information related to weather and geography would both practically aid EMS personnel on the ground and enrich the situational awareness of EMS systems.

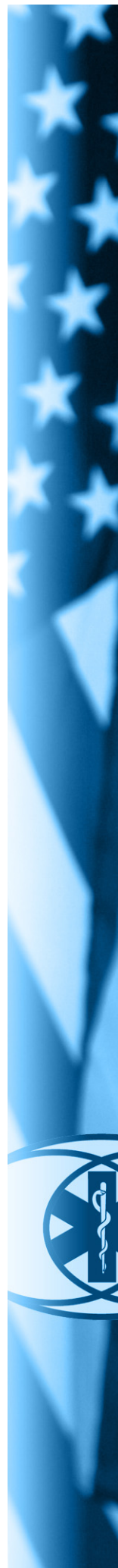
For instance, inclement weather can hinder EMS-related operations such as the movement of emergency vehicles and the transportation of patients into and out of ambulances. Sufficiently severe weather conditions may stop certain EMS practices altogether.³⁴

Technology plays a role in supporting effective EMS response. Participants in the March 2010 Stakeholders Meeting called for the improvement of technology infrastructure for global positioning system and geographic information system technology, including the areas of advanced automobile crash notifications and determination of call location.³⁵

³³ IOM, *Emergency Medical Services: At the Crossroads*, 84-86.

³⁴ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 24, 27.

³⁵ *Ibid.*, 8.



Goal 3

EMS systems fully integrated into State, territorial, local, tribal, regional, and Federal preparedness planning, response, and recovery

Objective 3.1: Develop and use reliable and consistent measures of EMS system preparedness

To enhance the level and integration of EMS preparedness, the EMS community must first establish standardized measures of preparedness based on reliable data. NEMSAC has encouraged FICEMS to make use of NEMSIS data in this preparedness effort.³⁶ The FICEMS has previously sponsored preparedness measurement tools for state and local systems.³⁷ Participants in the March 2010 Stakeholders Meeting also called for assessments to identify preparedness gaps and needs.³⁸ Specifically, EMS leaders must determine the level of integration between day-to-day EMS systems and the systems necessary in a disaster. The FICEMS will also examine the extent of the involvement of State and local entities in preparedness operations. Once standardized preparedness metrics are established and reliable data are collected, preparedness levels can be determined.

³⁶ NEMSAC, “NEMSIS,” 10.

³⁷ See the Model Inventory of Emergency Care Elements (MIECE) and the EMS Incident Response and Readiness Assessment (EIRRA) at [http://www.ems.gov/pdf/2011/July2011/7-Model.Inventory.of.Emergency.Care.Elements.\(MIECE\).pdf](http://www.ems.gov/pdf/2011/July2011/7-Model.Inventory.of.Emergency.Care.Elements.(MIECE).pdf) and [http://www.ems.gov/pdf/2011/July2011/8-EMS.Incident.Response-Readiness.Assessment.\(EIRRA\).pdf](http://www.ems.gov/pdf/2011/July2011/8-EMS.Incident.Response-Readiness.Assessment.(EIRRA).pdf)

³⁸ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 47.



Objective 3.2: Develop a rapid process for providing guidance on emerging EMS issues

The FICEMS will support the development of an efficient, flexible method to address emerging EMS issues. Challenges in the world of emergency care are rarely predictable or well defined, yet they demand rapid and effective responses. It is necessary to have an established process for resolving such issues before they arise. The FICEMS has a critical role to play in the development of such a process, as the coordination of Federal EMS entities is integral to their ability to effectively act and respond.³⁹ The FICEMS can enhance this coordination and guide responses to specific issues through activities such as the facilitation of communication among agencies and the fostering of an atmosphere of accountability.⁴⁰

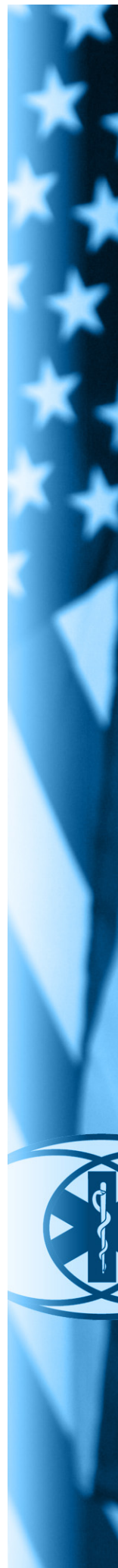
Objective 3.3: Improve EMS system preparedness for all-hazards, including pandemic influenza, through support of coordinated multidisciplinary planning for disasters

There have been numerous advances in EMS system preparedness over the past several years highlighted by several national reports and strategies. Addressing preparedness for pandemic influenza and all hazards should be supported by ongoing efforts to improve multidisciplinary planning such as the Crisis Standards of Care framework and other approaches. Additionally, agencies should continue their ongoing discussions on furthering grant alignment.

The 2009 National Health Security Strategy (NHSS) stated that “[c]ommunities should [...] be protected by coordinated emergency medical services (EMS) systems.” and emphasized the importance of that system to the nation’s preparation for and response to catastrophic incidents. It stressed the coordination of patient care across the entire continuum beginning with first responders and the emergency care system to ensure optimal outcomes during disasters and other situations where resources are scarce.

³⁹ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 7.

⁴⁰ Ibid., 7, 14.



Following the 2009 H1N1 influenza pandemic, the Institute of Medicine (IOM) led development of national guidance for implementing Crisis Standards of Care (CSC) which created a framework to guide health system operations during periods of sustained crisis operations and includes several sections focusing on the role of EMS.^{41,42,43}

The 2009 FICEMS report “State EMS System Pandemic Influenza Preparedness” identified numerous gaps in EMS preparedness and presented five strategies to close these gaps and stated that it is “the intent of FICEMS that EMS systems be fully integrated and coordinated with public health systems to improve preparedness for influenza pandemics.”⁴⁴

On July 8, 2013 FICEMS approved a plan to support national implementation of the CDC-funded Model Uniform Core Criteria (MUCC) for mass casualty triage systems.⁴⁵

In 2011 the Interagency Grant Coordination Committee was established by a Memorandum of Understanding (MOU) signed among ASPR, CDC, HRSA, FEMA and NHTSA for alignment of emergency preparedness grants within their respective agencies. Subsequently HHS released guidance aligning the ASPR Hospital Preparedness Program (HPP) and the CDC Public Health Emergency Preparedness (PHEP) program cooperative agreements.^{46,47}

⁴¹ Institute of Medicine, “Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report”, (2009) NAP, Washington, DC.

⁴² Institute of Medicine, “Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response”, (2012) NAP, Washington, DC.

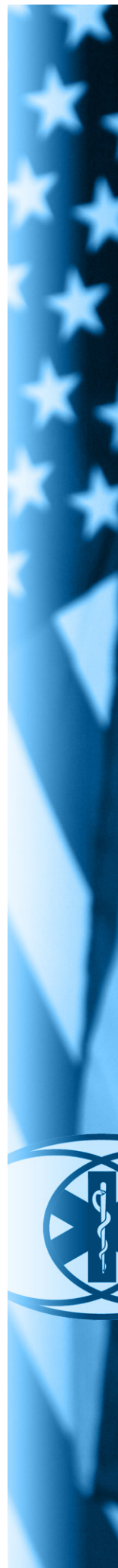
⁴³ Institute of Medicine, “Crisis Standards of Care: A Toolkit for Indicators and Triggers”, (2013) NAP, Washington, DC.

⁴⁴ FICEMS, “State EMS System Pandemic Influenza Preparedness,” (November 12, 2009), 1. Available at http://ems.gov/pdf/State_EMS_System_Pandemic_Influenza_Preparedness.pdf; last accessed June 5, 2013.

⁴⁵ “National Implementation of the Model Uniform Core Criteria for Mass Casualty Incident Triage: A Report of the FICEMS.” Department of Transportation, NHTSA (July 8, 2013), <http://ems.gov/nemsac/dec2013/FICEMS-MUCC-Implementation-Plan.pdf>.

⁴⁶ “Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness”, ASPR (2012). <http://www.phe.gov/preparedness/planning/hpp/reports/documents/capabilities.pdf>

⁴⁷ “Public Health Preparedness Capabilities: National Standards for State and Local Planning”, CDC (2011). http://www.cdc.gov/phpr/capabilities/DSLRCapabilities_July.pdf



Objective 3.4: Develop strategies to close the gaps identified in the preparedness component of the “National EMS Assessment”

The “National EMS Assessment” examines the types of EMS preparedness data available at the State, regional, and local levels and evaluates the quality of this data. The assessment also identifies gaps in the existing data, provides recommendations for improvement, and assesses the EMS system at the national level. The assessment focuses on 16 major topic areas, most of which are adopted from the EMS attributes identified in the “EMS Agenda for the Future.”⁴⁸ The assessment presents a broad array of statistics, many of which indicate deficiencies in the preparedness of the nation’s EMS systems. For example, only seven States mandate that local EMS agencies conduct or participate in a mass casualty exercise. An expert panel also supplied findings and recommendations based on the data provided.⁴⁹

Objective 3.5: Develop training and exercise standards within NIMS guidance to promote interoperability

To improve preparedness, FICEMS will promote standardized training practices throughout the nation. A tool to aid in this process is NIMS, a system that provides guidance for emergency management and promotes coordinated nationwide practices in preparedness, planning, and response.⁵⁰ At the March 2010 Stakeholders Meeting, participants advocated the use of NIMS for EMS coordination across different levels of government.⁵¹ The standardization of training and the evaluation of the workforce training exercises undertaken by States are critical to the efficiency and success of the EMS workforce.

⁴⁸ Ibid., 1-2.

⁴⁹ Ibid., 7.

⁵⁰ DHS, *National Incident Management System* (Washington: DHS, 2008). Available at <http://www.fema.gov/national-incident-management-system>; last updated June 4, 2013.

⁵¹ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 7.



Goal 4

EMS systems that are sustainable, forward looking, and integrated with the evolving health care system

Objective 4.1: Foster EMS participation in regional and State Health Information Exchanges (HIE)

Through its relationship with the NEMSAC and the broader EMS community, the FICEMS can encourage the participation of EMS systems in HIEs. HIEs involve automated electronic movement of an individual's health information across organizations.⁵² The Office of the National Coordinator for Health Information Technology at HHS states that its overarching goal for HIE is for health information “to follow a patient where and when it is needed, across organizational, vendor, and geographic boundaries.”⁵³ Linking EMS data to an HIE will encourage the transfer of data from EMS practitioners to hospitals and other medical providers. Such linkage can increase interoperability of prehospital and hospital care systems, thereby contributing to better patient care.

⁵² John Erich, “Infor-motion.” *EMS World* (December 1, 2010). <http://www.emsworld.com/article/10319085/infor-motion>; last accessed June 12, 2013.

⁵³ “Policymaking, Information & Strategy: Health Information Exchange Governance,” U.S. Department of Health and Human Services, HealthIT.gov. <http://www.healthit.gov/policy-researchers-implementers/health-information-exchange-governance>; last accessed June 27, 2013.



Objective 4.2: Foster and evaluate the development of innovative delivery models for EMS systems that could lead to changes in the reimbursement model

The FICEMS can help foster and evaluate the development of alternative delivery models for EMS systems. At least as early as 1996, NHTSA predicted that EMS systems would realize “the advantages of EMS as a community-based resource with broad expertise and capacity for contributing to community health monitoring and education dissemination.”⁵⁴ Coupled with evolutions in the broader healthcare system, EMS providers are increasingly moving in this direction and are exploring new methods of delivering EMS. One example of an innovative EMS delivery model is community paramedicine and mobile integrated health, where a patient may be referred to EMS practitioners to provide services in the home. The increased use of such innovative delivery models may affect the EMS reimbursement model while improving outcomes for patients. The FICEMS member agencies have explored these and other models previously in a draft white paper entitled *Innovation Opportunities in EMS*.⁵⁵

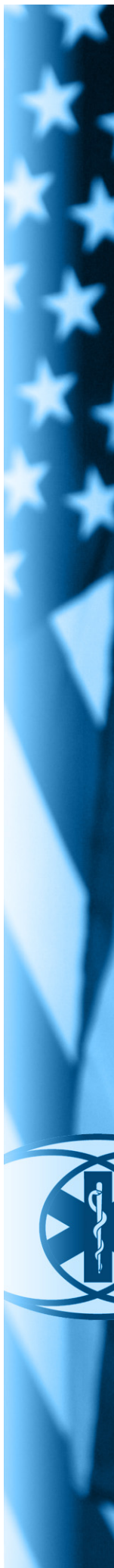
Objective 4.3: Provide coordinated Federal support for incorporating enhanced EMS and 9-1-1 technology for both patient and provider

Because of its role as a Federal interagency committee, the FICEMS can look across the Federal Government to identify promising technologies for EMS practitioners. The FICEMS can also encourage funding for technology-related needs analysis and research. Such analysis could identify new technology and potential technology transfers. In addition, the FICEMS could examine how technology affects or changes various aspects of EMS, such as data collection practices, education, and training.⁵⁶

⁵⁴ Department of Transportation, NHTSA, “EMS Agenda for the Future,” *Traffic Tech* 134 (September 1996), 38.

⁵⁵ Departments of Transportation and Health & Human Services, Draft White Paper on Innovation Opportunities in Emergency Medical Services. Published for comment on July 15, 2013. Accessible at www.EMS.gov/innovation.htm

⁵⁶ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 6, 10.



Objective 4.4: Apply lessons learned from military and civilian incidents to the EMS community

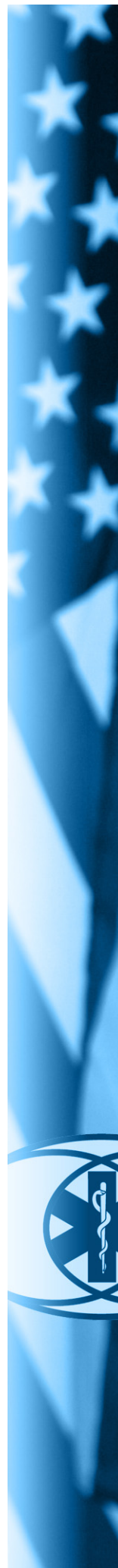
Currently, there is no central repository of EMS lessons learned and no systematic method of translating lessons learned from combat experiences to the day-to-day EMS practice. And, like all first responders, EMS practitioners are concerned about mass casualty incidents (MCIs). EMS personnel regularly train for such incidents, ranging from mass shootings to bombings to natural disasters. The FICEMS can bridge some of this informational gap by developing and publishing studies of major military and civilian MCIs. The FICEMS has done similar work before on notable MCIs. Following the deadly 2008 motor coach crash in Mexican Hat, Utah, the National Transportation Safety Board asked the FICEMS to examine the EMS response. After completing the evaluation, the FICEMS developed guidelines for emergency medical service response and shared those guidelines with State and local EMS officials.⁵⁷

Objective 4.5: Address the challenges of emergency care in areas where there are special concerns posed by geography or in which access may be limited

Geography has an effect on the provision of EMS care. In rural areas, emergency responders may have to travel longer distances across difficult terrain. In these situations, EMS crews play an active role alongside doctors and nurses after arriving at medical facilities. These interactions are generally guided by informal understandings and arrangements that have become established over time. In its paper “Rural and Frontier Emergency Medical Services: Agenda for the Future,” the National Rural Health Association argues that rural EMS systems of the future will need to serve as “a formal community resource for prevention, evaluation, care, triage, referral, and advice.”⁵⁸ Participants in the March 2010 Stakeholders Meeting also expressed the need for increased attention to rural EMS. Among other things, they called for the establishment of a national architecture and data system for emergency medicine and critical

⁵⁷ IOM, *Preparedness and Response to a Rural Mass Casualty Incident: Workshop Summary* (Washington: National Academies Press, 2011), 1-2.

⁵⁸ National Rural Health Association, *Rural and Frontier Emergency Medical Services: Agenda for the Future* (July 26, 2004), 2. Available at <ftp://ftp.hrsa.gov/ruralhealth/ServiceChiefsGuide.pdf>; accessed June 14, 2013.



care in rural emergency systems. They also encouraged the increased use of technology to deliver training to rural EMS providers.⁵⁹

⁵⁹ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 7-8.



Goal 5

An EMS culture in which safety considerations for patients, providers, and the community permeate the full spectrum of activities

Objective 5.1: Promote the reporting, measurement, prevention and mitigation of occupational injuries, deaths, and exposures to serious infectious illnesses in the EMS workforce

Illness, injury, and death are constant concerns for EMS personnel, due to the nature of their work. Participants in the March 2010 Stakeholders Meeting advocated the establishment of health and wellness standards for EMS personnel. Specifically, they recommended that the schedules of EMS personnel be adjusted to prevent fatigue and that bulletproof vests and influenza vaccinations be provided to EMS personnel.⁶⁰ Participants also focused on ensuring the safety of EMS transportation practices, citing the need for greater regulation of vehicle operations at the Federal level, improved ambulance design, and the creation of standards for vehicle “crash worthiness.”⁶¹ Such efforts would enhance the protection of EMS providers against the daily occupational hazards they face.

⁶⁰ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 22, 29, 31.

⁶¹ Ibid., 17, 25, 31.



Objective 5.2: Evaluate factors within EMS practices that contribute to medical errors or threaten patient safety

In a landmark 1999 IOM study, researchers found that health care was at least 10 years behind other safety-related industries in preventing harm. The study noted that out of 34 million U.S. hospital admissions, between 44,000 and 98,000 patients die annually from medical errors.⁶² These errors occur across the health care system and, therefore, can involve EMS practitioners.

Objective 5.3: Support the development and use of anonymous reporting systems to record and evaluate medical errors, adverse events, and “near misses”

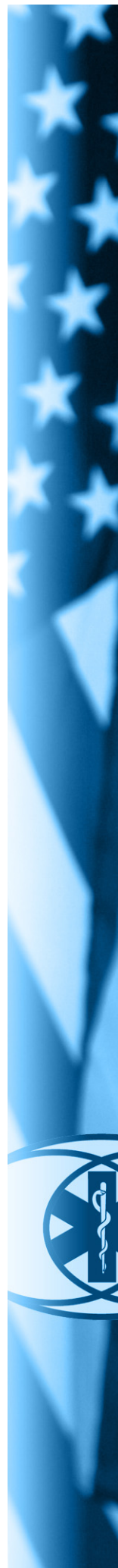
Researchers surveyed 283 EMS practitioners and found that 44 percent of them admitted to committing one or more serious errors in the previous year; only half of the errors were reported to supervisors or medical directors.⁶³ Such lack of reporting undermines the credibility and quality of EMS services. Participants in the March 2010 Stakeholders Meeting called for a system for the self-reporting of medical errors, as exists in the airline industry; regarding EMS transportation-related issues, they advocated a nationwide database to house ambulance crash data, both to better define the problem and to provide a foundation for potential solutions.⁶⁴ Such reporting should be anonymous to encourage candor and specificity. Increased reporting would promote accountability and identify areas for improvement in the provision of EMS services.

Objective 5.4: Evaluate FICEMS role in supporting implementation of the “Strategy for a National EMS Culture of Safety”

⁶² IOM, *To Err is Human* (Washington: National Academies Press, 1999), 26, 71.

⁶³ Cherri Hobgood, Barnes Bowen Josie, Jane H. Brice, Barbara Overby, and Joshua Tamayo-Sarver, “Do EMS Personnel Identify, Report, and Disclose Medical Errors?” *Prehospital Emergency Care* 10, no. 1 (January 2006): 21-27.

⁶⁴ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 31.



EMS operations have the potential to expose EMS practitioners to injury, serious illness, and death. There have been recent advances in safety practices in many hazardous fields, including aviation that may be applicable to EMS.⁶⁵ In 2009, NEMSAC called on NHTSA to work with FICEMS to assure “integration and utilization of EMS illnesses, injury, and fatality surveillance databases across Federal agencies.”⁶⁶ A result of this recommendation has been the three-year development of the “Strategy for a National EMS Culture of Safety” - a high-level document that identifies six key elements needed to promote a culture of safety within an EMS organization. NEMSAC envisioned that FICEMS would support the “Strategy” in agency grants, programs, and policies.⁶⁷ For instance, FICEMS could examine how on-the-job injuries, deaths, and exposures to serious infections affect the EMS population.

Objective 5.5: Promote the use of detection equipment, training, and personal protective equipment known to enhance the safety of EMS personnel

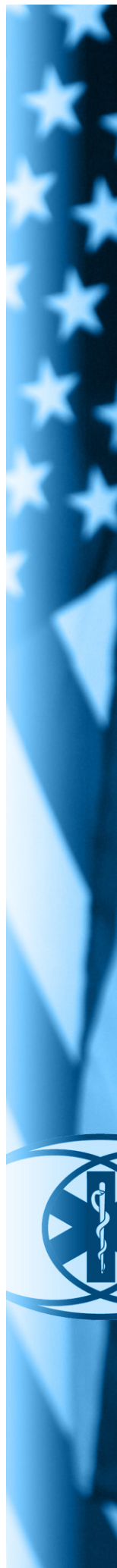
EMS practitioners provide medical treatment at the scene of an incident and are often among the first group of responders to arrive. As a result, EMS responders are also likely to be present on the scene before hazards are brought fully under control and before situational awareness is complete. EMS practitioners risk exposure to chemical, biological, or radiological materials when they address the needs of contaminated patients, particularly during MCIs. Participants in the March 2010 Stakeholders Meeting called on FICEMS to ensure that adequate types of all-hazards personal protective equipment and detection equipment are made available to EMS personnel.⁶⁸ FICEMS could leverage the ongoing work of the Occupational Safety and Health Administration, for instance, in promoting the adoption and proper use of personal protective equipment.

⁶⁵ Department of Transportation, NHTSA, *Strategy for a National EMS Culture of Safety: NEMSAC Review Draft* (Washington: NHTSA, December 12, 2012), 57. Available at <http://www.emscultureofsafety.org/wp-content/uploads/2012/12/Strategy-for-a-National-EMS-Culture-of-Safety-NEMSAC-DRAFT.pdf>; last accessed January 31, 2013.

⁶⁶ NEMSAC Recommendations to FICEMS, 1.

⁶⁷ Ibid.

⁶⁸ FICEMS National EMS and 9-1-1 Stakeholders Meeting Minutes, March 2010, 53.



Goal 6

A well-educated and uniformly credentialed EMS workforce

Objective 6.1: Promote implementation of the “EMS Education Agenda for the Future” to encourage more uniform EMS education, national certification, and state licensing

NEMSAC has called on the FICEMS to identify opportunities to expedite the implementation of the “EMS Education Agenda for the Future.”⁶⁹ The National Association of State EMS Officials (NASEMSO) requested the development of the “Agenda” following the release of the 1996 “EMS Agenda for the Future.” The education agenda promotes quality and consistency among all EMS education programs. It recommends common entry-level requirements for state licensure of EMS providers throughout the nation. The education agenda provides a national framework for EMS education program accreditation and certification. EMS education program accreditation is provided by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). National EMS certification is provided by the National Registry of Emergency Medical Technicians (NREMT). EMS stakeholders who have participated in the development of the education agenda said that an established national EMS education system would align EMS with other health professions and enhance the professional credibility of EMS practitioners.⁷⁰

⁶⁹ NEMSAC Recommendations to FICEMS, 1; informed by NHTSA EMS Education Task Force, *Emergency Medical Services Education Agenda for the Future*.

⁷⁰ NASEMSO, *Talking Points for the EMS Education Agenda for the Future—A Systems Approach* (March 23, 2009). Available at <http://nasemso.org/EMSEducationImplementationPlanning/documents/TalkingPoints032309R.pdf>; last accessed June 12, 2013.



Objective 6.2: Support State, territorial and tribal efforts to enhance interstate legal recognition and reciprocity of EMS personnel

NASEMSO has proposed an interstate compact model that will help offer rapid, and in some cases immediate, legal recognition to EMS practitioners operating across State lines. This project creates procedures that parallel the process for interstate recognition of nursing licenses and State drivers' licenses on short-term bases. In both examples, member States agree to honor licenses when the licenses are issued by another member State under the terms of the compact. Ultimately, the project will help solve the problem associated with emergency deployment of EMS practitioners across State boundaries. In many cases, the use of out-of-state EMS practitioners is delayed or prevented following a disaster. NASEMSO noted that rules governing emergency deployment of EMS practitioners vary greatly. Texas, for example, recognizes EMS licenses from surrounding States.⁷¹

Objective 6.3: Work with State EMS Offices to support the transition of military EMS providers to civilian practice

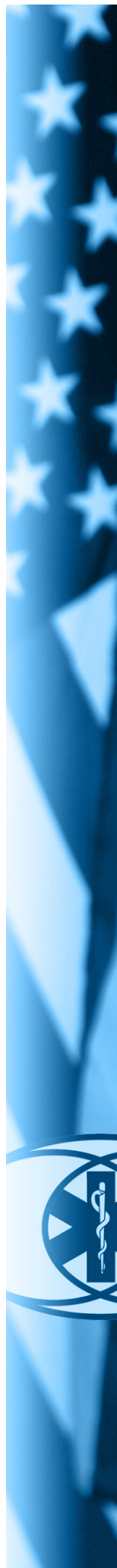
The military educates approximately 12,500 combat medics, Navy corpsmen, and Air Force medical technicians every year.⁷² Currently, an estimated 40,000 paramedics serve on active Army duty and in the National Guard.⁷³ The Department of Labor projects a need for an additional 120,800 EMS practitioners in the civilian workforce within 10 years.⁷⁴ Separating military service members could be an ideal resource to help meet this employment demand. Military Medics and Corpsmen have extensive experience with administering care in high pressure situations. This experience can serve them well in civilian jobs in emergency medical response. Increasingly, the military is using the National Registry of EMTs as a basis for

⁷¹ NASEMSO, *Model Interstate Compact for EMS Personnel Licensure for State Adoption* (Falls Church, VA: undated). Available at <http://www.nasemso.org/Projects/InterstateCompacts/documents/Model-Interstate-Compact-Talking-Points2013-04.pdf>; last accessed June 19, 2013.

⁷² Theresa McCallion, "Proposed Legislation Supports Transition of Veterans to Civilian EMS," *Journal of Emergency Medical Services* (April 2013). Available at <http://www.jems.com/article/news/proposed-legislation-supports-transition>.

⁷³ Ibid.

⁷⁴ Ibid.



certification of their emergency medical services personnel. States generally recognize the NREMT certification as one of the prerequisites for state licensure as an EMT, but most states also have additional requirements for state licensure and these requirements vary widely from state to state.

Some military personnel also have experience and education that exceeds their level of certification that could assist them through bridge programs with moving to higher levels of education and licensure. For instance, the advance education and significant combat experience of some military EMTs (e.g. Army 68W) may be useful in “bridging” to Paramedic training and licensure.

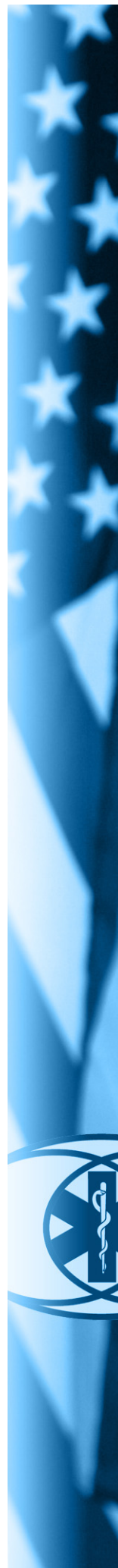
Systemically working with State EMS offices can help to promote more uniform licensing requirements for separating service members and their wives. Concerted efforts with state EMS offices and the EMS educational infrastructure can help to enhance bridge program opportunities.

Objective 6.4: Promote the implementation of the “EMS Workforce Agenda for the Future” to encourage data-driven EMS workforce planning

According to the vision of the “EMS Workforce Agenda for the Future,” “EMS systems of the future will be able to recruit and maintain a sufficient number of well educated, adequately prepared, and appropriately credentialed EMS workers who are valued, well compensated, healthy, and safe.”⁷⁵ To this end, the “EMS Workforce Agenda for the Future” focuses on progress in four crucial areas: health, safety and wellness of EMS personnel, education and certification, data and research, and workforce planning and development. The document discusses several visionary goals to be accomplished by 2020, such as how “[n]ew threats to workforce health and safety, including those resulting from large-scale incidents, will be proactively identified and mitigated.”⁷⁶

⁷⁵ Department of Transportation, NHTSA, *The Emergency Medical Services Workforce Agenda for the Future* (May 2011), 3. Available at http://www.ems.gov/pdf/2011/EMS_Workforce_Agenda_052011.pdf; accessed August 19, 2013.

⁷⁶ Ibid., 13



The document urges the EMS community to collect EMS workforce data regarding issues such as quantity of paid workers, volunteer workers, and graduates of education programs. The FICEMS supports the collection of such workforce-related data, which will then allow for informed workforce planning. In its discussion on workforce education and credentialing, the “EMS Workforce Agenda for the Future” cites relevant assessments and recommendations provided in the “EMS Education Agenda for the Future: A Systems Approach.” This document specifically advocates States’ acceptance of National EMS Certification and the accreditation of all EMS education programs at the national level.⁷⁷

⁷⁷ Ibid., 4.



Conclusion

The “Draft FICEMS Strategic Plan: Mission, Vision, Goals, and Objectives” expresses the committee’s long-standing commitment to supporting the EMS community. The FICEMS expects the plan will guide its work in the immediate future and will serve as a guide for future strategic planning efforts.

This document is the result of a years-long collaborative strategic planning process. It provides a framework around which the FICEMS can synchronize the efforts and strategies of the FICEMS member agencies under a common goal while avoiding duplication of effort. This document can be used as a basis for developing specific tasks and road maps for improving EMS.

Eventual implementation of a strategic plan will result in aligned and coordinated Federal support for EMS. The impact of this implementation will be seen in EMS systems that fully integrate the needs of underserved populations such as children, the elderly, and the geographically isolated.



Appendix A:

Proposed Tracking and Monitoring Plan

A RACI matrix is a project management tool that clearly depicts the functions of specific parties or roles in the performance of particular actions or tasks. Use of a RACI matrix can help ensure that all parties both have input into and are aware of the duties expected of them.⁷⁸ For each action, an organization may be assigned one of the positions shown in table 1 below:⁷⁹

Table 1. RACI matrix

R esponsible	A ccountable	C onsulted	I nformed
The role or roles that actually perform the action required by the task.	The role that is finally answerable for the task.	The role or roles whose inputs are solicited prior to the task.	The role or roles to whom the outcome is communicated following completion.
<i>Who has the action on this activity?</i>	<i>Who is “on the hook” for this activity?</i>	<i>With whom do we have to clear this? What is their input?</i>	<i>Who needs to know about this?</i>

⁷⁸ Michael L. Smith and James Erwin, “Role and Responsibility Charting (RACI),” *Project Management Forum* (2005): 2.

⁷⁹ Navoneil Bhattacharyya, “Can Operational Level Agreements be the Answer to Multi-sourcing Blues in the Area of Cross-vendor Co-operation?” *SETLabs Briefings* 4, no. 2 (October-December 2006): 3. Available at <http://www.infosys.com/IT-services/infrastructure-management-services/white-papers/Documents/operational-level-agreements.pdf>; last accessed June 12, 2013.

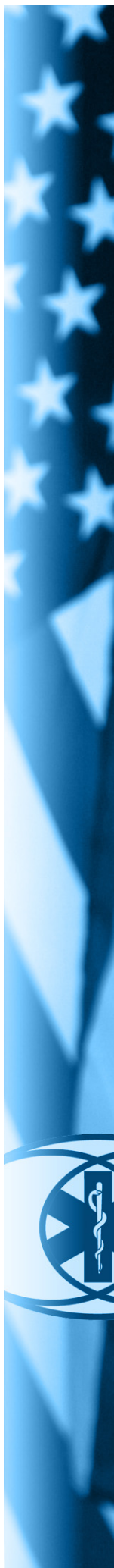
Several additional guidelines should be followed in the creation of a RACI matrix:⁸⁰

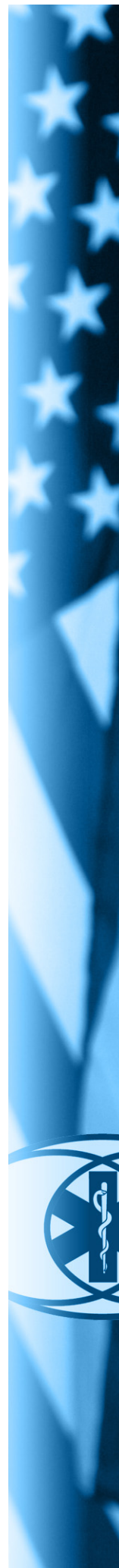
- Designate only one role as “accountable” for each activity. (There may be multiple roles deemed “responsible,” “consulted,” or “informed” for each activity.)
- Reduce, to the extent possible, the number of “consulted” and “informed” parties.
- Ensure that roles deemed “accountable” possess the necessary corresponding authority.
- Assign “responsible” and “accountable” to the lowest possible levels within an organization.

A RACI matrix can be an invaluable tool for any organization, particularly one, such as FICEMS, that comprises many distinct component entities. This matrix serves to coordinate and streamline the efforts of involved parties and to promote an atmosphere of accountability.

In the context of FICEMS, the elements of the strategic plan can be tracked and monitored using the RACI matrix on the following page.

⁸⁰ Ibid.





R = Responsible								
A = Accountable								
C = Consulted								
I = Informed								
Goal 1: Coordinated, regionalized, and accountable EMS and 9-1-1 systems that provide safe and high-quality care								
Objective 1.1 Identify and promote the development and use of EMS performance measures and benchmarks								
	FICEMS	TWG	Committee	Committee	Committee	Committee	Committee	Committee
Brief description of Work Plan Activity								
Brief description of Work Plan Activity								
Brief description of Work Plan Activity								

Figure 2. Sample RACI matrix

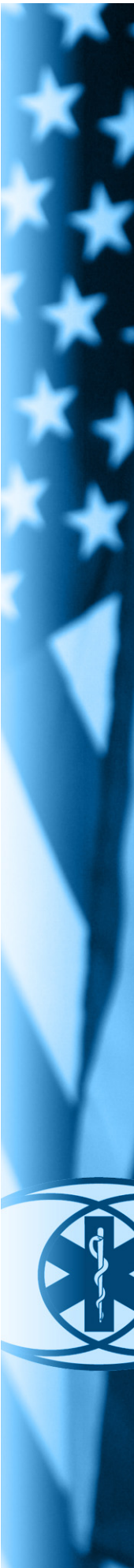
Appendix B:

Sample Traceability Matrix

The strategic objectives can be cross-walked with the statutory purposes of FICEMS. In the table below, at least one draft objective is cross-walked against each purpose statement (A through F) from the FICEMS statute.

Table 2. Strategic planning cross-walk

FICEMS Purpose (from 42 USC § 300d-4)	Example Draft Strategic Objective
(A) To ensure coordination among the Federal agencies involved with State, local, tribal, or regional emergency medical services and 9–1–1 systems.	FICEMS will work to achieve the six EMS system goals described in this plan by coordinating interagency policies, programming, and messaging, as well as soliciting and integrating stakeholder input from across the EMS community.
(B) To identify State, local, tribal, or regional emergency medical services and 9–1–1 needs.	1.4 Promote best practices to identify and reduce regional disparities in care, including supporting States in improving data quality.
(C) To recommend new or expanded programs, including grant programs, for improving State, local, tribal, or regional emergency medical services and implementing improved emergency medical services communications technologies, including wireless 9–1–1.	2.6 Explore the use of technology that enables information sharing (including weather and geographic information systems information) for increased situational awareness, operational efficiency, and scene safety. 5.5 Promote use of evidence-based detection equipment, training, and personal protective equipment to ensure the safety of EMS personnel.
(D) To identify ways to streamline the process through which Federal agencies support State, local, tribal or regional emergency medical services.	4.3 Provide coordinated Federal support for enhanced EMS and 9-1-1 technology for both patient and provider.
(E) To assist State, local, tribal or regional emergency medical services in setting priorities based on identified needs.	1.5 Develop partnerships with State regulatory agencies to promote regionalization and accountable care systems. 3.4 Develop strategies to close the gaps identified in the preparedness component of the “National EMS Assessment.”
(F) To advise, consult, and make recommendations on matters relating to the implementation of the coordinated State emergency medical services programs.	6.2 Support State efforts to promote the proper interstate acceptance of EMS personnel.



DOT HS 811 990
March 2014