

## Overview

The emergency medical services (EMS) workforce represents the primary point of interaction between persons injured in motor vehicle crashes, their families, and the rest of the EMS and emergency care system. Throughout the nation, EMS is available 24 hours per day, 7 days per week – a mobile, licensed and credentialed healthcare workforce. Assuring the continued viability of the EMS workforce is an integral component of the National Highway Traffic Safety Administration's (NHTSA's) comprehensive program to improve crash outcomes through an organized approach to post-crash care.

In 2004, NHTSA initiated a cooperative agreement with the University of California, San Francisco (UCSF) to conduct a comprehensive national EMS workforce assessment and develop the EMS Workforce Agenda for the Future (the Workforce Agenda). The vision of the Workforce Agenda is a future in which all EMS systems have a sufficient number of well educated, adequately prepared, and appropriately credentialed EMS workers who are valued, well compensated, healthy, and safe. The Workforce Agenda identifies four components critical to developing an EMS workforce that will thrive and be a driving force for achieving an integrated, community-based EMS system. The four components identified through the Workforce Agenda development process were

- Health Safety and Wellness
- Education and Certification
- Data and Research
- Workforce Planning and Development

A number of efforts have been, or are being, conducted by NHTSA and its partners to advance these four components including development of national EMS workforce data definitions, implementation of a national EMS workforce injury and illness surveillance program (EMS-WIISP) and implementation of the EMS Education Agenda for the Future: A Systems Approach (the Education Agenda).

In 2014, the National Association of State EMS Officials (NASEMSO), through a cooperative agreement with NHTSA, developed the EMS Workforce Planning and Development Guidelines for State Adoption (EMS Workforce Guidelines). The guidelines were developed based on earlier works including the EMS Workforce Agenda, the 2011 National EMS Assessment, and the Workforce for the 21st Century: A National Assessment. These documents consistently identify a lack of available and reliable data-related workforce issues and the underdeveloped infrastructure necessary to collect this information.

The EMS Workforce Guidelines also identified that EMS has a forecasted growth in demand for EMTs and paramedics between 2014 and 2024 of 24 percent, more than triple the 7 percent growth rate of average for all occupations. This growth rate does not take into account replacing those who will be retiring or leaving the profession. Both new positions and open positions must be filled with a supply of qualified, certified, and licensed EMS personnel.

The EMS Workforce Guidelines did not attempt to address all aspects of the current and potential needs and demands on the EMS workforce, but instead, recommended 10 essential practices for state EMS offices to adopt. The Core 10 Guidelines are categorized based of the four focus areas outlined in the EMS Workforce Agenda. The Core 10 Guidelines are:

**Guideline 1: Data & Research - *Acquire Essential Workforce Data***

Collect a core set of workforce data elements to address workforce assessment, planning, and policy issues.

*Rationale: Current state EMS office practices vary as it relates to the data elements and collection practices. Incentivizing states to collect this information is the cornerstone of success in subsequent guidelines, enabling graphical analysis, comparison between states and regions, and aggregation at a national level.*

**Guideline 2: Workforce Planning & Development - *Engage Local EMS Agencies***

Local EMS agencies need support and guidance to 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.

*Rationale: Local EMS services struggle to ensure adequate coverage for their service areas. Issues faced by local EMS agencies include EMS personnel shortages, challenges with recruitment and retention and availability of quality training programs. State EMS agencies can provide education and support on workforce planning and development practices, guide and enable local EMS agencies and assist data gathering from the local level.*

**Guideline 3: Workforce Planning & Development - *Engage State Workforce Agencies***

The State Workforce Agency develops and maintains a statewide comprehensive system of services that prepares, supports, and enhances the economic health of the workforce.

*Rationale: State Workforce Agencies provide programs and services to build stronger workforces. State EMS offices can take advantage of tools and resources provided by State Workforce Agencies for best practices*

and guide the state EMS offices in the use of data, research and workforce planning.

**Guideline 4: Education & Certification - Credential EMS Educators**

States should credential EMS educators based upon their ability to successfully prepare students for competency-based testing.

*Rationale: The quality of EMS education varies throughout the nation. EMS instructors are responsible for educating future EMS professionals. Credentialing EMS instructors will help ensure that they are capable and well trained.*

**Guideline 5: Education & Certification - Obtain Educational and Institutional Data (Workforce Supply)**

States should be able to track the number of individuals at each interval of the education, certification, and licensure process for each personnel level.

*Rationale: By reporting the educational data from institutions that teach EMS programs to one centralized system, states can use the information to evaluate workforce trends, especially the performance of the education system and its contribution to workforce availability.*

**Guideline 6: Education & Certification - Understand the EMS Education Pipeline (Workforce Supply)**

Utilize available information to analyze and address needs in and performance of the state EMS education system.

*Rationale: The numbers of EMS personnel who are enrolled within the EMS education system have a direct impact on the supply, demand and need of the workforce within the state. The state EMS office needs to have a basic measure to determine the relationship between EMS course completion, passing the national certification exam, and obtaining a state license.*

**Guideline 7: Workforce Planning & Development - Quantify Population Actively Functioning in a Paid or Volunteer Capacity (Workforce Supply)**

States should use data collected to quantify the population entering and continuing to function in the EMS workforce.

*Rationale: Currently, the most basic workforce statistics, such as workforce size, cannot be estimated using data that is available. The size of the existing workforce is unknown due to volunteer and career providers, providers working for more than one agency, and cross trained firefighter- providers. Knowing the current size of the workforce is vital to understanding future needs.*

**Guideline 8: Workforce Planning & Development - Understand EMS Workforce Demand**

Utilize available information to analyze and understand the number of EMS jobs available for various types of personnel.

*Rationale: Understanding the demand for EMS personnel is fundamental to understanding the current and future EMS workforce needs. Completion of guidelines 1-3 are required to complete this guideline.*

**Guideline 9: Workforce Planning & Development - *Support Military & Spouses Transitioning to the EMS Workforce After Military Service***

States should support separating service members, veterans and their spouses who seek to obtain EMS certification and/or licensure through necessary policy, education and legislation.

*Rationale: Despite valuable training and experience, separating military service applicants frequently find it difficult to obtain formal civilian recognition of their military training. By aiding separating service applicants, and their spouses, state EMS offices can meet employer needs for skilled workers while capitalizing in the education, training, and experience already received by military service applicants and their spouses.*

**Guideline 10: Health, Safety & Wellness – *Maintain a Healthy EMS Workforce***

The State EMS Office is encouraged to collect data relating to EMS worker illness and injuries

*Rationale: There is a need for better understanding of the types of injuries and other conditions affecting EMS personnel. The collection of workforce illness and injury data can provide the foundation for evidence-based safety standards, operational practices and prevention strategies.*

## Vision

The vision is that adoption of the Core 10 Guidelines will become the foundation for state EMS offices to work to advance their collective knowledge and understanding of the EMS workforce and be best positioned to inform state workforce agencies, state legislators, and others in their executive branch about EMS workforce challenges. Implementing the Core 10 Guidelines will require state EMS Offices to work with their local EMS agencies, EMS educational institutions, and their state workforce agencies.

States have extensive experience in change management in EMS systems. Several landmark improvements have been the result of national initiatives that states assessed for utility within their own systems. Others have been the result of the “voice of the system” in the form of local EMS agency leadership, including chief administrative officials and medical directors, who saw opportunities for system improvement on clinical or operational levels. In the most complex examples, adjustments or reformation of state regulatory frameworks were essential not only to the success of the innovation, but to perpetuate the immovable role of the state in its execution of the legislative mandate to protect the public.

While states, local EMS agency leadership, medical directors, and EMS personnel have consistently led with good intentions, there has not been a universal approach crafted to guide such change. Without that, there can be no assurance of uniformity in approach, or utilization of fundamental improvement science-based strategies and measurement tools to assess, design, measure, evaluate, and confirm performance levels.

To that end, and in recognition of the likelihood of the persistence of transformative change in local, regional, and statewide EMS systems, the goal of this project is to create a common “framework” that will guide consideration and processes that result in innovative change geared to ensure, as identified in the National EMS Assessment, the ability 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.”

NASEMSO is the only national representative organization for the state EMS offices, and in turn, the state EMS offices have the lead in licensing EMS personnel to practice in their respective states. The state EMS offices have greater and more detailed data concerning EMS workforce demand and supply issues than what is available through federal partners such as the Bureau of Labor Statistics. However, there is not uniform EMS data collection concerning the workforce among the states. The EMS Workforce Assessment states that the EMS profession does not have the data necessary to address EMS workforce issues. More widespread adoption of the guidelines through this project will enable state EMS offices to quantify workforce issues related to volunteers and wage-earning personnel, filling gaps that exist in current state and federal quantitative approaches. Implementing the 10 core practices identified in the EMS Workforce Guidelines will address this issue.

This project proposal anticipates the organization of ideas and approach in a methodical fashion whereby the current status of implementation is assessed, promising practices are developed, key stakeholders are engaged, state EMS offices are provided resources, and an evaluation is completed to measure the effectiveness of the measures to move implementation of the guidelines.

### **Workplan Components and Milestones and Deliverables List**

*(With descriptions as necessary; Milestones and Deliverables are presented in the timeline chart below)*

- KICK-OFF Meeting

NASEMSO has a strong history of developing Kick-Off meeting presentations, including briefing packages and PowerPoint presentations. This briefing will be conducted by the Project Manager and Executive Director. Attendees for whom mutually convenient

scheduling will be arranged will include interested NHTSA and Federal Interagency Committee on EMS (FICEMS) technical working group staff at a location of NHTSA's choosing in Washington, D.C.

Through a concise but thorough project overview of the workplan that reflects the planned approach the project objectives, activities, tactics and milestones, and deliverables will be provided. This briefing will provide attendees with the opportunity to gain a greater understanding of not only the implementation, but also provide an opportunity for questions, responses, and discussion.

- **STAKEHOLDER INTERACTION**

NASEMSO will develop and maintain an active liaison relationship with partner stakeholder groups that can assist in this effort.

- **CONDUCT BASELINE ASSESSMENT**

At this point, it is unknown to what extent the Core 10 Guidelines have been adopted by state EMS offices. State EMS offices will be assessed as to the extent they are utilizing the guidelines and which of the fifty-five data elements identified in Guideline 1, in addition to the seventeen essential elements identified in NASEMSO's Military to Civilian EMS Project, are currently collected. The assessment will also gauge familiarity with the EMS Workforce Guidelines and ask about barriers to implementation.

- **REVIEW PREVIOUS MILITARY TO CIVILIAN WORK**

NASEMSO has done extensive work with the Military-to-Civilian project (see DTNH22-11-H-00338 Cooperative Agreement Project 0006). This issue was also addressed in Guideline 9, supporting separating service members, veterans and their spouses who seek to obtain licensure through necessary policy, education, and legislation. Reviewing this previous work will establish a foundation and opportunity to update it as needed, and serve as a basis to evaluate how states have adopted the recommendations and is expected to identify additional promising practices.

- **IDENTIFY AND PUBLISH PROMISING PRACTICES**

Local agencies and systems, and some states, have attempted to address their workforce needs with little guidance on workforce planning, and express frustration due to the lack of workforce planning models or promising practices. From the assessment, and the review or previous work, efforts that have been taken by states will be identified and documented. Providing the promising practices to state EMS offices will help avoid every state needing to develop their own implementation strategies from scratch.

While no state may be addressing all 10 of the guidelines, examples should be available from across the states. Any guideline for which a promising practice for implementation, maintenance, and use is not identified would indicate a gap that will need to be addressed. When no promising practice exists within state EMS offices, looking at examples from other professions will be necessary. Working with State Workforce Agencies and the Department of Labor, transferable practices can be provided as models.

Promising practices may need to be developed that differ for career and volunteer recruitment and retention. The guidelines identified that low wages, poor benefits and lack of career ladders contribute to turnover among EMS providers. The motivators for volunteers would be different than career provider and little information exists on strategies for the recruitment and retention of volunteers. The challenge to maintain EMS coverage in areas that would be otherwise uncovered will differ from those services that compensate providers.

- **WORKFORCE SUMMIT**

In conjunction with a national meeting, NASEMSO will conduct an EMS Workforce Summit. The Summit will include representatives from state EMS offices, including representatives from the Personnel Licensure Council, Data Managers Council, and Education Committee. Other stakeholders include, but are not limited to, EMS licensing software vendors, state workforce offices, the National Association of EMS Educators, National Association of EMTs, the National EMS Management Association, and other organization associated with the Joint National EMS Leadership Forum. This Summit will be planned and executed by NASEMSO in a manner commensurate with that customary for a national conference and meeting of this stature, including venue choices, and a format to allow for thorough exploration of the collective perspective and expertise of the meeting participants described above.

This Summit will be held to expose the participants and project staff to input from EMS innovators, EMS officials with experience in workforce planning, and non-EMS individuals with experience in related areas. Subject matter experts in areas such as work planning and development, education and certification, data and research, and military to civilian issues will be included.

Discussion will be facilitated to identify needs of the state EMS offices and local EMS agencies concerning the implementation of the EMS Workforce Guidelines. It is expected that the participants will identify resources that can be developed. The resources may include:

- Recruitment/retention publications

- Implementation guidelines
- Coordination meeting with software vendors

Invitation development and dissemination, meeting facilitation, meeting materials content and appearance, and documentation of meeting proceedings will occur using proven business practices and with characteristics of quality that meet or exceed the federal agency's expectations. Meeting dates shall be established with extended lead times to assure that all critical participants have ample advanced notice to secure dates for each meeting and travel in their schedules.

- **DEVELOPMENT OF RESOURCES**

A taskforce of workforce and EMS experts will be developed from among the Summit participants. These experts will develop and review the resources identified during the Summit as necessary for implementing the EMS Workforce Guidelines. The taskforce members will also provide technical assistance to state EMS offices.

The resources will be distributed to state EMS offices and made available to other interested parties, including local EMS agencies. The resources may include implementation guidelines, list of resources, and recruitment material. It is expected that additional involvement of software vendors will be necessary to enable the data collection that is so vital to the implementation of the EMS Workforce Guidelines.

- **CONDUCT FINAL ASSESSMENT**

At the end of the project period, a final assessment will be conducted of the state EMS offices. The assessment will be similar to the baseline assessment so progress in implementing the EMS Workforce Guidelines can be evaluated. The assessment will also evaluate if the resources developed have been utilized by the State EMS office.

## Reporting

- **QUARTERLY PROGRESS REPORTS**

By the 15<sup>th</sup> of the month after the conclusion of the first conventional calendar quarter (e.g., October 1-December 31) post award, the NASEMSO Project Manager will provide a written report of that quarter's accomplishments, a summary of obstacles encountered, plans for the next reporting period, and questions for NHTSA. Actual or anticipated issues will be specifically outlined in the report.

- **FINAL REPORT**

The grantee shall prepare a Draft Final Report that includes a description of the project, issues addressed, program implementation (previous, ongoing and planned), evaluation strategies, findings and recommendations. Regarding information transfer, it is important to know what worked and what did not work under what circumstances, and what can be done to avoid the problems identified in future efforts.

### **Tool/Document Development and Management Tactics**

- The project manager (who will also be the technical writer) will have the primary responsibility for document development and management.
- Document management practices will include an online collaborative workspace such as Basecamp or Dropbox to facilitate easy access to the most current working documents during the duration of the project by taskforce members and staff.
- All drafts intended for national EMS community review will be posted to a project page on a timely basis in a format that can be opened with Adobe Reader. The document will use markers (e.g., continuous line numbering, section segregation, etc.) to optimize convenience for commenters and allow project team members to maximize efficiency when aggregating and reviewing comments.
- The project webpage will include a mechanism for comment submission online as has been successfully implemented and utilized for the “EMS Workforce Planning & Development Guidelines” project for NHTSA.
- NASEMSO’s project team, will actively consider all feedback from the Taskforce, the Summit participants, the national EMS community, and the National EMS Advisory Committee (NEMSAC).
- All teleconferences will utilize online document display and dynamic desktop sharing using GoToMeeting or a comparable commercially available system to enhance group interaction, clarity during discussions, and overall performance.
- The project manager/technical writer and editor will create and revise iterative drafts throughout the process, and will complete a final review prior to final submission.
- In addition to document file type requirements for submission to US DOT/NHTSA, the grantee will create a dynamic electronic version for use after NHTSA internal clearance that includes active links to citations, industry websites, and other source documents available online.

- The project manager/technical writer, NASEMSO Executive Director and editor will be available during the NHTSA internal review process should any assistance, clarification, or document refinements be needed.
- NASEMSO commits to maintaining the work products of this project including any future revisions pending resource capability.

## Task Management: Comprehensive Timeline Including Milestones and Deliverables

Milestones (M) Deliverables (D)	Months Post Award																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Award Date																		
Kick-off Meeting (D)	X																	
Develop Baseline Assessment Tool (M)	X																	
Submit revised workplan (D)		X																
Distribute Assessment Tool (M)		X																
Collect and Review Results (M)		X	X															
Review Previous Military to Civilians Resources (M)		X	X															
Identify Promising Practices (M)				X														
Develop and Distribute Promising Practice Document(s) (D)					X	X	X											
Hold Workforce Summit* (D) (Date Dependent on meeting arrangements)																		
Convene taskforce* (M)																		
Develop resources* (D)																		
Quarterly Reports (D)			X			X			X			X			X			
Submit Final Report (D)																		X

- Dependent on award date/national meeting schedule