

# STAIRS



PB98-174550

EMERGENCY  
MEDICAL  
SERVICES

AGENDA  
FOR  
THE  
FUTURE

REPRODUCED BY:  
U.S. Department of Commerce  
National Technical Information Service  
Springfield, Virginia 22161

NTIS

# The Vision

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Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.

# Message from the Administrator



Our nation's health care system is in flux. Efforts to reduce cost and improve the effectiveness of health care are leading to fundamental changes in the way the public accesses—and pays for—medical treatment. Recognizing the skills and strengths of prehospital professionals and the importance of superior EMS care, the National Highway Traffic Safety Administration and the Health Resources and Services Administration joined with leaders from the EMS community in 1996 to create a strategic plan for building the next millennium's EMS system.

The *EMS Agenda for the Future* envisions EMS as the linchpin joining today's isolated public safety, health care and public health systems. While emergency response must remain our foundation, EMS of tomorrow will be a community-based health management system that provides surveillance, identification, intervention and evaluation of injury and disease. This role strengthens the essential value of EMS as the community's emergency medical safety net.

The EMS community has again come together to develop the *EMS Agenda for the Future: Implementation Guide*. It focuses on three strategies for realizing our vision. We need to build bridges between EMS and other components of the community health care system; we need to create infrastructure that supports streamlined public access and rapid delivery of emergency care; and we need to develop new tools and resources. All too often, we travel no deeper than broad generalities, but I am proud to say that inside you will find the concrete steps we must take to build the 21st Century's EMS system.

*The EMS Agenda for the Future is the vision for emergency medical services in the United States—a vision that builds on the strengths of America's diverse emergency resources and expands our country's emergency medical safety net.*

We now have a common vision, a common goal. If the *EMS Agenda* is our destination, then the *Implementation Guide* will be our roadmap. Together, we can strengthen the nation's emergency medical safety net.

*Ricardo Martinez, MD  
Administrator  
National Highway Traffic Safety Administration*



# Credits

Credits

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# Executive Summary

The *EMS Agenda for the Future* provides an opportunity to examine what has been learned during America's EMS experience of the past three decades, and create a vision for the future. This opportunity comes at an important time, when those agencies, organizations and individuals that affect EMS are evaluating its role in the context of a changing health care system.

The *EMS Agenda for the Future* proposes a vision for the future of EMS. EMS of the future will be community-based health management that is integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury follow-up, and contribute to the treatment of chronic conditions and community health monitoring. EMS will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.

**To realize this vision, continued development of 14 EMS attributes is required. They are:**

- Integration of Health Services
- EMS Research
- Legislation and Regulation
- System Finance
- Human Resources
- Medical Direction
- Education Systems
- Public Education

- Prevention
- Public Access
- Communication Systems
- Clinical Care
- Information Systems
- Evaluation

The National Highway Traffic Safety Administration, in partnership with the Maternal and Child Health Bureau, Health Resources and Services Administration, commissioned development of *The EMS Agenda for the Future: Implementation Guide*. Its purpose is to propose objectives that will lead to achieving the goals established by the *EMS Agenda for the Future: Implementation Guide* objectives correspond to the three broad areas in which diligent efforts must be continued. They are building bridges, creating tools and resources, and developing infrastructure. Bridges will strengthen partnerships and result in new and enhanced relationships among the many agencies, organizations and individuals with a stake in the future of EMS. These partnerships must seek diversified perspectives and invite enthusiastic participation if barriers on the path to the future are to be overcome. New tools and resources will enable progress and facilitate activities on widespread bases. Improved infrastructure will add to the capacity of EMS to affect community health.

Venturing toward the future vision for EMS is an ambitious undertaking. Activities must be initiated on national, state and local levels. Ten "priority objectives" (short, intermediate and long-term) are proposed to be the initial foci for all

potential participants. The priority objectives provide the following directions:

- Develop collaborative strategies to identify and address community health and safety issues.
- Align the financial incentives of EMS and other health care providers and payers.
- Participate in community-based prevention efforts.
- Develop and pursue a national EMS research agenda.
- Pass EMS legislation in each state to support innovation and integration.
- Allocate adequate resources for medical direction.
- Develop information systems that link EMS across its continuum.
- Determine the costs and benefits of EMS to the community.
- Ensure nationwide availability of 9-1-1 as the emergency telephone number.
- Ensure that all calls for emergency help are automatically accompanied by location-identifying information.

*The EMS Agenda for the Future: Implementation Guide* is intended to be a tool for EMS providers, administrators and medical directors; health care providers, administrators and payers; public health and safety officials, local, state and federal government officials; organization and community leaders; and all other entities and people with a potential interest or influence on the structure or function of our nation's system for providing emergency medical care. We all must be committed to an EMS system that is accessible, reliable, and that contributes to the health of our communities. *The EMS Agenda for the Future: Implementation Guide* is a call for action to join partnerships that will lead to the exploration of possibilities for the future of EMS—a crucial part of the health care system and the public's emergency medical safety net.

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The *EMS Agenda for the Future* establishes a vision for the future of emergency medical services (EMS) in the United States. The document discusses 14 attributes, and notes that further work on their development is vital to the future of EMS. The Agenda proposes goals for the future, describing them as “where we want to be.” It also provides 90 suggestions for “how to get there.” *The EMS Agenda for the Future* further defines how to get where we want to be, by providing meaningful objectives, or steps, for reaching the desired goals. The Implementation Guide is intended to serve as a companion document to the *EMS Agenda for the Future*. The two are to be used in concert.

Each of the Implementation Guide’s set of objectives contains several components that facilitate appropriate reference to the Agenda, convey a course of action, help define partnerships, and illustrate part of its meaning.

**The components are:**

- EMS Agenda for the Future sections—The Agenda sections indicate for which of the 14 EMS attributes are relevant. In most cases, objectives serve the established goals for more than one attribute.
  - Activity focus—The activities required to meet each set of objectives are described as national, state or local action. In many cases the focus may be at two or even three levels.
- Although activity may be focused at a particular level, activity at another level(s) is certainly not precluded.
- Summary statement—The overall intent of the objectives is described, and correlates with the “How to Get There” statements in the Agenda. However, the summaries differ from the Agenda because they often represent more than one goal, correspond to more than one EMS attribute, and reflect further refinement of important concepts.
  - Short-term objective—Short-term objectives describe activities to be completed within one to three years. The activity may already be ongoing or even completed in some locations, but still requires initiation in most others.
  - Intermediate-term objective—Activities to be completed in approximately two to five years are described as intermediate objectives.
  - Long-term objective—Activities believed to require more than three years to initiate and complete are described as long term objectives. The terms short, intermediate and long term are meant to provide guidance and a broad time

frame to prompt action. They are not meant to be overly restrictive. For example, work toward an intermediate objective might commence prior to meeting the corresponding short-term objective. However, initiation of short-term activity will generally precede the intermediate activity, as is also the case for intermediate and long-term objectives. More constraining or exact time frames are avoided in recognition of the diversity of EMS systems and the communities they serve. The ability to muster resources and commence work toward meeting individual objectives will vary across the nation.

- Potential lead participants—Agencies, organizations and groups of individuals are suggested for assuming lead roles in developing the partnerships and conducting the activities necessary to meet the stated objectives. The participants are listed alphabetically.
- Potential contributing participants—Agencies, organizations and groups of individuals are suggested for joining the partnerships and activities necessary to meet the objectives. They are listed alphabetically. The lists of potential participants are not meant to be

exclusive. For example, an organization that is indicated as a potential contributing participant might find itself with the interest and resources to take the lead on a particular issue. This is encouraged. Similarly, an agency may have an interest in an area for which it was not suggested as a participant. The variety of potential participants is extraordinary; it must be if EMS is to realize its potential. Undoubtedly, there are possibilities for partnerships that are not described here. However, that does not mean they should not be pursued with interest and vigor. The lists of potential participants are calls to action intended to promote thought, discussion, involvement and the exploration of possibilities.

- Vignette—The vignettes that accompany most of the objectives are meant to be illustrative and thought provoking. By themselves, they are not intended to advocate particular action or terminology.



Implementation Guide objectives correspond to three broad themes: developing partnerships, creating tools and resources, and building infrastructure. Developing partnerships will result in new and enhanced relationships among organizations, agencies and

individuals. Partnerships can create synergy to effect change, which is necessary to better integrate EMS with other health services, improve its ability to affect community health, and ensure that its critical role in the health care system is fulfilled.



Creation of tools and resources facilitates the initiation of additional action on a widespread basis. Resources can be used to improve information, financial, legislative, educational and other aspects of EMS.



EMS infrastructure includes many aspects of the system, such as the workforce, communication systems. It provides the capacity to produce desired community-wide outcomes. Therefore, building infrastructure is crucial to the future of EMS if it is to realize its potential in the care of America's communities.



"Priority objectives" include objectives from each of the three themes. They are objectives that deserve the earliest attention because they best fulfill the following criteria:

- They will significantly improve local EMS systems' abilities to serve their communities.
- They address an important and pressing problem or need for which early action is desirable.
- They lead to direct and positive influences on patient out-

comes or community health, thus enhancing the effects of EMS;

- They affect the greatest number of people, including EMS personnel and community members.
- They are achievable with the resources currently available.

*The EMS Agenda for the Future: Implementation Guide* is a tool for EMS providers, administrators and medical directors; health care providers, administrators and payers; public health and safety officials; local, state and federal governmental officials; organization and community leaders; and any other entity or person with a potential interest or influence on the structure or function of the nation's system for providing emergency medical care. Every one is urged to review the objectives proposed here, and identify those for which they might play a role. Organizations, agencies and individuals should study the "priority" objectives to determine how they can help to achieve them. The index of potential participants and their corresponding objectives (Appendix B) may be useful for identifying other objectives on which particular groups might focus. Organizations, agencies and interested individuals should determine those objectives for which they are suited and prepared to begin work. They should then initiate or join the partnerships that will lead to the exploration and achievement of a vision for the future of EMS in America.

*The best way to predict the future is to create it.*

—Peter Drucker

The organizations, agencies and individuals that affect the nation's emergency medical services (EMS) system stand at a critical point. For, through their collective efforts it is they who hold the ability and responsibility to create the future of EMS. Participation at local, state and national levels is crucial if EMS is to realize its potential role in caring for the health of America's communities.

Creating the future for EMS is not a simple prospect, but it is critically important. It will require diligent efforts by those who have the resources and capabilities to influence any aspect of the EMS system. It will require changes in the perceived relationship between EMS and other efforts to improve the health of our communities.

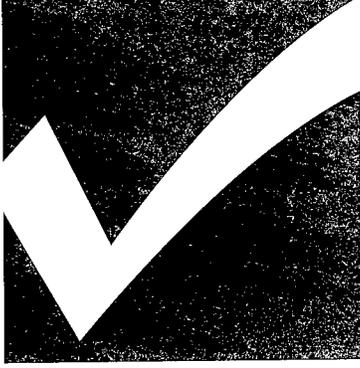
Change does not come easy. The need must be recognized, and there must be a vision to help indicate where change will lead. The *EMS agenda for the Future* identifies the need and offers a vision for the future of EMS that emphasizes its critical role in health care and as the public's emergency medical safety net. The next step toward change is exploration of possible strategies to reach the desired results. The Implementation Guide serves as a tool for such exploration.

The path to the future will undoubtedly include barriers. Among them may be a failure to recognize a desirable change,

an inadequate exploration of possibilities or a lack of important participation. New and creative partnerships will be required to overcome these barriers. Some partners may seem logical based upon their current participation in EMS affairs. Others might be found in unlikely places of the health care system, education system, community organizations and agencies, or industry, for example. Partnerships must be inclusive. They must seek diversified perspectives and invite enthusiastic participation. The job of making communities healthier is shared by many. Similarly, the venture to create the future of EMS cannot be done in isolation. It must involve the innumerable agencies, organizations, individuals and interests with which EMS interfaces.

Achieving the vision for the future of EMS will be complex. It is simplified by establishing objectives that lead to the desired result. Yet, work toward meeting all objectives will be an ambitious undertaking. Therefore, it is imperative that all those with a stake in the future of EMS participate and act deliberately. *The EMS Agenda for the Future: Implementation Guide* is a call for action. EMS organizations, agencies and individuals, and all those who have the potential to affect the EMS system at local, state and national levels must initiate and join partnerships that will create synergy. The spectrum of possibilities for creating the future of EMS can then be explored, so that results are achieved.

# Priority Objectives



**EMS Agenda for the Future:**

Integration of Health Services • Public Education • Prevention

**LOCAL ACTION:**

**Develop collaborative strategies to identify and address community health and safety issues.**

**OBJECTIVES:**

**Short Term**

Develop relationships between EMS agencies and other public/community health and safety organizations to identify community health and safety issues.

**Intermediate Term**

Use meetings and publications to disseminate information regarding successful strategies, projects and programs that address community health and safety issues and incorporate EMS participation.

**Long Term**

Ensure active collaboration among EMS agencies at local, state and national levels and public/community health and safety agencies and organizations in efforts to improve community health.

*Representatives from Noblestown EMS call the public health department and the local hospital emergency department director to arrange a meeting. Over the course of several meetings they identify a population of people with chronic obstructive pulmonary disease (COPD) who are frequent emergency department patients. They develop a plan that has EMS intensifying the monitoring and treatment of these patients in their homes. Subsequently, their hospital emergency department visits decrease.*

**Potential Participants**

**Lead:** EMS provider agencies, public/community health and safety agencies.

**Contributing:** AAA, AARP, ACEP, ACS-COT, ANA, APHA, ASTHO, emergency physicians, EMS medical directors, FEMA, health care networks, health plans, IAFC, IAFF, NACCHO, NAEMSE, NAEMSP, NAEMT, NASEMSD, NFA, NRHA, social service agencies, STIPDA.

**EMS Agenda for the Future:**

System Finance • Integration of Health Services • EMS Research • Clinical Care • Evaluation

**NATIONAL AND LOCAL ACTION:**  
**Align the financial incentives of EMS and other health care providers and payers.**

**OBJECTIVES:****Short Term**

Initiate collaborative relationships between EMS provider agencies and other health care providers and payers.

**Intermediate Term**

Develop models for financial relationships between EMS and health care payers in urban, suburban, and rural communities.

**Long Term**

Implement pilot projects, involving collaboration of EMS and other health care providers and payers, that align financial incentives and improve the effectiveness and efficiency of efforts to address communities' emergency health care needs.

*Saltsville EMS administration establishes a dialogue with Healthy Folks Network. They discuss a model relationship that was proposed at a recent conference, and decide to develop a pilot project utilizing this approach. Parts of the project involve more prevention-related activities by EMS, expanded options for transportation destinations, facilitation of patient follow-up, and payment that is not dependent on transportation. The project also involves continuous assessments of EMS effectiveness and quality. The project's continuation depends on the results of regular systematic reviews.*

**Potential Participants**

**Lead:** EMS provider agencies, health care networks.

**Contributing:** AAA, AAHP, AAPPO, ACEP, AhA, colleges and universities, EMS researchers, HCFA, health care insurers, hospitals, IAFC, IAFF, local governments, NAEMSE, NAEMSP, NASEMSD, NCQA, state EMS lead agencies.

**EMS Agenda for the Future:**

Prevention • Integration of Health Services • Education Systems

**NATIONAL, STATE AND LOCAL ACTION:  
Participate in community-based prevention efforts.**

**OBJECTIVES:**

**Short Term**

Educate EMS provider agencies about the Safe Communities concepts, and identify possible community-based, prevention-oriented partnerships.

**Intermediate Term**

Collaborate with community agencies, organizations and health care providers to identify community prevention needs and the potential roles of EMS.

**Long Term**

Develop the resources necessary to support continuous EMS participation in community-based illness and injury prevention efforts.

*The state EMS lead agency and health department collaborate to distribute a profile of preventable injuries in the state to EMS agencies. The profile includes demographic and geographic breakdowns of specific problems, and a directory of various community agencies and organizations. Burgett EMS uses the information in the directory to identify potential community partners for its prevention program.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies, HRSA/MCHB, NHTSA.

**Contributing:** AAA, AAP, ACEP, ACS, AHA, ATS, CDC, ENA, ENCare, governor's highway safety agencies, IAFC, IAFF, NACCHO, NAEMSE, NAEMSP, NAEMT, NASEMSD, NSC, NCSEMSTC, NFA, NHAAP, NRHA, public health departments, state EMS lead agencies, STIPDA, USFA.

**EMS Agenda for the Future:**  
 EMS Research • Education Systems • Information Systems

**NATIONAL ACTION:**

**Develop and pursue a national EMS research agenda.**

**OBJECTIVES:**

**Short Term**

Develop processes to establish a national EMS research agenda, uniform reporting styles, and standard outcome measurements.

**Intermediate Term**

Establish a national EMS research agenda, guidelines for uniform reporting styles, and standard outcome measurements.

**Long Term**

Use conferences and publications to disseminate a national EMS research agenda, guidelines for reporting research results, and information about standard outcomes measurements.

*The National Highway Traffic Safety Administration (NHTSA), the Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB), and the Agency for Health Care Policy and Research (AHCPR), fund several meetings to develop a national EMS research agenda by organizational representatives. Standard outcome measurements and uniform reporting styles are also established. Subsequent federal funding for EMS research is directed toward agenda issues. This compels the use of standard outcome measurements and uniform reporting styles. The quality and comparability of EMS research increases.*

**Potential Participants**

**Lead:** AHCPR, HRSA/MCHB, NAEMSP, NHTSA, SAEM.

**Contributing:** AAA, AACEM, AAMC, AAP, ACEP, ACS-COT, AHA, ANA, APHA, ATS, CDC, EMS researchers, IAFC, IAFF, NAEMSE, NASEMSD, NFA, public health schools, USFA.

**EMS Agenda for the Future:**  
Legislation and Regulation • Public Access

**NATIONAL AND STATE ACTION:**  
Pass EMS legislation that enables each state to support innovation and integration.

**OBJECTIVES:**

**Short Term**

Develop model legislation and regulations that designate a state EMS lead agency and support EMS innovation and integration.

**Intermediate Term**

Market model EMS legislation and regulations within each state.

**Long Term**

Pass legislation within each state that enables it to designate an EMS lead agency and is consistent with the *EMS Agenda for the Future*.

*The National Association of State EMS Directors (NASEMSD) develops model state EMS legislation. The model is presented to the National Conference of State Legislatures (NCSL) and to state legislatures. Subsequently, the number of states with laws and regulations that support EMS innovation increases.*

**Potential Participants**

**Lead:** NASEMSD, state EMS lead agencies, state legislatures.

**Contributing:** AAA, AAP, ACEP, ACS-COT, AHA, IAFC, IAFF, NAEMSP, NCSEMSTC, NCSL.

**EMS Agenda for the Future:**

Medical Direction • Legislation and Regulation • Education Systems • Clinical Care

**NATIONAL, STATE AND LOCAL ACTION:  
Allocate adequate resources for medical  
direction.****OBJECTIVES:****Short Term**

Develop a multidisciplinary position paper with widespread endorsement, that provides guidelines for medical direction of EMS system activities.

**Intermediate Term**

Develop the resources and funding necessary to support appropriate EMS system medical direction.

**Long Term**

Require that all EMS provider agencies maintain a formal documented relationship with a qualified medical director.

*As part of its budget, Moyer County EMS provides resources and a modest stipend to its medical director, an emergency physician at the regional hospital. When the medical director relocates, the EMS agency requests that its representatives be involved in the process of recruiting a replacement. Their efforts focus on identifying a new physician with expertise consistent with published guidelines, and the desire to be a qualified EMS medical director.*

**Potential Participants**

**Lead:** EMS provider agencies, EMS medical directors, NAEMSP, NASEMSD, state EMS lead agencies.

**Contributing:** AAA, AAP, ACEP, ACS, ASTM, IAFC, IAFF, JRC, NAEMT, NEMSA, NFA, USFA.

**EMS Agenda for the Future:**

Information Systems • Integration of Health Services • EMS Research • Evaluation

**NATIONAL, STATE AND LOCAL ACTION:  
Develop information systems that link EMS  
across its continuum.**

**OBJECTIVES:**

**Short Term**

Develop information system plans as living documents that address the need to generate and transmit valid, reliable, and accurate data.

**Intermediate Term**

Plan to link EMS information systems with those of other health care providers, public safety agencies, and community resources, taking into consideration hardware and software compatibility, and confidentiality issues.

**Long Term**

Complete the installation and training necessary to establish an EMS data system with links between EMS systems and other health care agencies and providers to track and report system utilization, patient care and outcomes, and link EMS across its continuum.

*The Western Region EMS Council creates an information system partnership among health and public safety agencies in the area. The partnership is responsible for developing a dynamic information system plan that will lead to multiple links, facilitating information exchange and a complete description of EMS care.*

**Potential Participants**

**Lead:** AMIA, EMS provider agencies, NHTSA, state EMS lead agencies.

**Contributing:** AAA, AhA, colleges and universities, EMS researchers, FEMA, health care networks, IAFC, NAC, NACCHO, NLC, public health agencies, public safety agencies, social service agencies, state departments of transportation, USFA.

**EMS Agenda for the Future:**  
Evaluation • EMS Research

**NATIONAL AND LOCAL ACTION:**  
**Determine the costs and benefits of EMS to the community.**

**OBJECTIVES:**

**Short Term**

Determine the cost of providing communities with EMS.

**Intermediate Term**

Develop models for estimating the quantitative and qualitative benefits of EMS for communities.

**Long Term**

Determine and continually monitor the value EMS adds to the community's health care.

*Mason County EMS begins the process of determining its value to the community. First it calculated its associated costs, using a model developed by a national working group. It uses similar models to continuously monitor its effect in the community, placing the identified costs into context.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies.

**Contributing:** AAA, ACEP, AHA, AHCPR, APHA, ATS, CDC, colleges and universities, EMS researchers, HRSA/MCHB, IAFC, IAFF, NAEMSP, NASEMSD, NHAAP, NHTSA, SAEM, USFA.

**EMS Agenda for the Future:**  
Public Access • Legislation and Regulation • Public Education

**NATIONAL, STATE AND LOCAL ACTION:**  
Ensure nationwide availability of 9-1-1 as the emergency telephone number.

**OBJECTIVES:**

**Short Term**

Continue to collect and disseminate information about the extent of nationwide 9-1-1 coverage, and identify and work to eliminate barriers to its use.

**Intermediate Term**

Promulgate laws or regulations that will ensure the availability of 9-1-1 to those who cannot afford routine telephone service.

**Long Term**

Educate consumers of the availability of 9-1-1, despite their possible inability to afford routine telephone service.

*When Sue and Dave Morris moved with their 14-month-old son, Derek, they could not afford telephone service immediately. Fortunately, they could still call 9-1-1. A state law requires telephone companies to always maintain 9-1-1 service for any pre-existing residential telephone connection. When Derek suffered a seizure and stopped breathing while Sue and Dave were unpacking boxes, they called 9-1-1 for help. EMS personnel arrived within minutes, and discovered that Derek's seizure was the result of asphyxia due to a marble lodged in his airway. The immediate availability of 9-1-1 led to the quick action that saved Derek's life.*

**Potential Participants**

**Lead:** CTIA, NASEMSD, NENA, public utility commissions, state legislatures, telephone companies.

**Contributing:** AAA, AAP, AARP, ACEP, ACS, AHA, APCO, CFSI, EMS provider agencies, IAFC, IAFF, NAC, NAEMSP, NAEMT, National Governors' Council, National Native American EMS Association, NHAAP, NLC, NRHA.

**EMS Agenda for the Future:**  
Public Access • Legislation and Regulation • Communication Systems

**STATE AND LOCAL ACTION:**

**Ensure that all calls for emergency help are automatically accompanied by location-identifying information.**

**OBJECTIVES:**

**Short Term**

Educate state legislators and state and local government officials about the importance of addressing systems, including in rural communities.

**Intermediate Term**

Mandate, by statutes or regulations, that all residences, businesses, established public places, and permanent telephone locations must have assigned addresses.

**Long Term**

Employ automatic number identification and automatic location identification technology at all public safety answering points.

*During the past year, Springer County ensured that all residences, businesses, and public places were assigned locatable addresses. In July, an out-of-state motorist stopped at a park along the county's scenic roadway. Moments later, she witnessed a car strike a pedestrian in the parking area. Even though she could not accurately describe her location when she called 9-1-1 from her wireless telephone, the caller's location was displayed on the screen of the answering point. The appropriate response was immediately put into motion.*

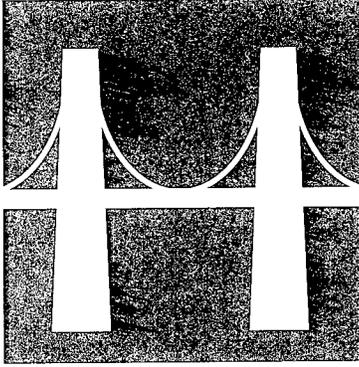
**Potential Participants**

**Lead:** APCO, CTIA, NENA, public safety answering points.

**Contributing:** AAA, FEMA, HRSA/MCHB, IAFC, IAFF, local governments, NAC, NAEMSP, NAEMT, NASEMSD, NHTSA, public utility commissions, state legislatures.



# Building Bridges



**LOCAL, STATE, NATIONAL ACTION:  
Identify and meet community health-related  
data collection needs.**

**OBJECTIVES:**

**Short Term**

Enhance relationships between national, state and local EMS agencies and other public/community health and safety agencies, organizations and governmental bodies in order to identify data needs.

**Intermediate Term**

Develop collaborative relationships among EMS agencies, health agencies and organizations, governmental bodies, corporations and educational institutions to develop tools that enable collection, analysis and dissemination of community health information.

**Long Term**

Ensure active participation of EMS agencies in community health monitoring activities by collecting and sharing important information with other public/community health and safety agencies and organizations, and governmental bodies.

*Bluesberg EMS calls the local public health department to explore possible data sharing projects. Using a national data dictionary, a data collection tool is developed to improve their ability to evaluate the circumstances of EMS patients who are not transported, and do not generate another form of health care record. Data analysis reveals that most patients are from a few neighborhoods. This leads to further evaluation and education programs.*

**Potential Participants**

**Lead:** EMS provider agencies, public/community health and safety agencies.

**Contributing:** AAA, ACEP, APHA, CDC, city and county councils/commissions, colleges and universities, EMS lead agencies (national, state, and local), EMS medical directors, health plans, hospital associations, IAFC, IAFF, NACCHO, NAEMSP, NASEMSD, NCSEMSTC, NIH, NRHA, state departments of transportation, USFA.

**EMS Agenda for the Future:**  
 Integration of Health Services • System Finance • Public Access • Clinical Care

**STATE AND LOCAL ACTION:**

**Develop cooperative relationships with other community health care providers and insurers.**

**OBJECTIVES:**

**Short Term**

Facilitate creation of local liaisons between EMS provider agencies and health care networks and insurers, by providing the EMS provider agencies with demographic information about the networks and insurers in their areas, and the names of their medical directors and managers.

**Intermediate Term**

Establish and maintain open communication, in order to develop mutual understandings of important issues, between EMS agencies and the health care networks, insurers, and providers in their areas.

**Long Term**

Involve EMS in collaborative efforts to address the particular needs of specific health care networks and insurers and other members of the community.

*The state EMS lead agency provides Belleview EMS with a profile of area health care networks and insurers. Some of the information was obtained from the Charles Singer company. Representatives from Belleview EMS and prominent health care networks in their community meet. Together, they develop guidelines for EMS utilization that are distributed throughout the community. They also develop communications avenues for EMS to convey information about encounters with the networks' members and facilitate appropriate follow-ups.*

**Potential Participants**

**Lead:** EMS provider agencies, health care networks, state EMS lead agencies.

**Contributing:** AAHP, ACEP, ANA, employers, EMS medical directors, HCFA, hospitals, NAEMSP, NASEMSD, physician organizations, state insurance commissions.

**EMS Agenda for the Future:**

Integration of Health Services • System Finance • Education Systems • Public Access • Clinical Care

**NATIONAL, STATE AND LOCAL ACTION:  
Integrate the goals and activities of EMS and health care networks.**

**OBJECTIVES:**

**Short Term**

Enhance efforts by EMS lead agencies and state and national associations to educate EMS provider agencies about the health care system, and to educate insurers and other health care providers about the current and potential roles of EMS.

**Intermediate Term**

Incorporate EMS into health care networks' plans for their members' emergency needs, and improve the understanding, regarding complementary roles in caring for the community, among EMS, health care networks, and insurance managers.

**Long Term**

Provide forums for the development and dissemination of models that integrate the goals and activities of health care networks and EMS systems through conferences and publications.

*The state EMS lead agencies coordinate a symposium involving EMS provider agencies, health care networks and insurance representatives. Discussions focus on possible system changes and joint approaches to important community issues. Working groups are established to develop quality indicators regarding EMS utilization by health care networks. These are subsequently advocated for adoption by the National Committee for Quality Assurance (NCQA).*

**Potential Participants**

**Lead:** Health care networks, NAEMSP, state EMS lead agencies.

**Contributing:** AAA, AAHP, AAP, ACEP, ACS-COT, AHA, ASTHO, EMS medical directors, EMS provider agencies, EMS providers, HCFA, HIAA, HRSA, IAFC, IAFF, NASEMSD, NCQA, NHTSA.

**NATIONAL, STATE AND LOCAL ACTION:**  
**Improve EMS care for patients with special needs.**

**OBJECTIVES:**

**Short Term**

Identify those who care for patients with special needs (e.g., dependent on medical devices, children, geriatric, hemophiliac, HIV-infected and others) and associated community-based organizations, and develop relationships between them and EMS provider agencies.

**Intermediate Term**

Collect and analyze data regarding EMS utilization by patients with special care needs, and continually review and update pertinent policies and protocols.

**Long Term**

Share information among EMS agencies, other health care providers and community agencies and groups to facilitate enhanced coordination of efforts to care for those community members with special needs.

*Winslow EMS representatives meet with parent groups at five elementary schools, where they have often responded for children with asthma exacerbations. EMS subsequently participates in efforts by the parents, school officials, pediatricians, and emergency department staff to improve care for the affected children. These efforts include improved assessment skills in order for EMS providers to make better decisions regarding treatment and transport and referral options.*

**Potential Participants**

**Lead:** Community groups, EMS medical directors, EMS provider agencies, state EMS lead agencies.

**Contributing:** AAP, AARP, Association of Maternal and Child Health Programs, ACS, ANA, consumer representatives, EMS-C, EMS-G, hospices, hospitals, local and state medical societies, MCHB, NCSEMSTC, NHTSA, physicians, public health agencies, social service agencies, USFA, visiting nurse agencies.

**STATE AND LOCAL ACTION:**

**Enhance collaborative relationships between EMS and other community agencies.**

**OBJECTIVES:**

**Short Term**

Identify community agencies and organizations, including their missions and structures, with which EMS might collaborate to improve communications and subsequent follow-up by referral services.

**Intermediate Term**

Use conferences and publications to disseminate information about model relationships between EMS provider agencies and other community agencies and organizations, and how these relationships affect the EMS contribution to community health.

**Long Term**

Collaborate with other community agencies and organizations to improve community health, and implement referral programs for EMS patients.

*Hadley EMS contacts all health care and social service agencies in the county in order to develop a resource manual. The resource manual eventually includes each agency's or organization's mission statement, information about the population it serves, contact information, and the process it uses to arrange an expedient referral. Information in the manual is shared with other EMS agencies through the state EMS lead agency, and it is updated periodically.*

**Potential Participants**

**Lead:** EMS provider agencies, public health agencies, social service agencies.

**Contributing:** APHA, EMS medical directors, health care networks, hospices, hospitals, NASEMSD, NFA, public safety agencies, state EMS lead agencies, USFA, US Public Health Service, visiting nurse agencies.

**EMS Agenda for the Future:  
EMS Research**

**NATIONAL, STATE, AND LOCAL ACTION:**  
Ensure that human subjects are protected during EMS-related research.

**OBJECTIVES:**

**Short Term**

Develop and conduct educational programs regarding informed consent rules and institutional review board requirements as they pertain to EMS-related research involving human subjects.

**Intermediate Term**

Establish relationships between EMS agencies that conduct research and functioning institutional review boards, to facilitate appropriate scrutiny of proposed research projects and ensure the protection of human subjects.

**Long Term**

Convene regular meetings of EMS researchers, ethicists, and representatives of appropriate federal agencies as part of the continuous evaluation of emergency informed consent processes and protection of human subjects.

*Several organizations collaborate to develop an educational program curriculum about research involving human subjects and institutional review board processes. The curriculum is widely distributed and used. Increased awareness prompts Lortown EMS to develop a relationship with a nearby college institutional review board. The board then reviews Lortown EMS's research proposal when it plans to be part of a multi-center study. Appropriate human subject protections are put into place, and are cited when the study's findings are published.*

**Potential Participants**

**Lead:** ACEP, NAEMSP, NASEMSD, SAEM.

**Contributing:**

AAA, AAP, ACS-COT, AHA, colleges and universities, DHHS, EMS provider agencies, EMS researchers, FDA, IAFC, IAFF, medical schools, NAEMSE, NAEMT, NCSEMSTC, NIH, NFA, state EMS lead agencies, USFA.



**STATE AND LOCAL ACTION:**  
**Develop collaborative endeavors between EMS systems and academic institutions.**

**OBJECTIVES:**

**Short Term**

Identify appropriate academic centers with which to establish EMS research and educational liaisons.

**Intermediate Term**

Establish continual research and educational liaisons among all EMS provider agencies and appropriate academic institutions.

**Long Term**

Conduct meaningful EMS-related research and improve EMS provider education opportunities through collaboration between EMS systems and academic institutions.

*The Tri-County EMS Council, representing 14 EMS provider agencies, establishes liaisons with four area colleges, the regional teaching hospital, and the state university. Representatives from all the institutions and agencies meet regularly as a research council. Sharing their research and fundraising expertise and resources, they generate grant proposals. The council is currently conducting three extramurally funded research projects in the areas of cardiac resuscitation, trauma epidemiology, and community health surveillance.*

**Potential Participants**

**Lead:** Academic hospitals, colleges and universities, EMS provider agencies.

**Contributing:** AACEM, AAMC, AAUAP, ASPH, EMS education programs, EMS medical directors, research funding organizations, SAEM, state EMS lead agencies.

**EMS Agenda for the Future:  
Education Systems**

**NATIONAL, STATE AND LOCAL ACTION:**  
Provide academically accredited EMS education that employs innovative technology.

**OBJECTIVES:**

**Short Term**

Identify the resources needed to provide alternatives to conventional EMS education.

**Intermediate Term**

Offer and evaluate various education formats, including distance and interactive self-learning, by applying existing and developing technology.

**Long Term**

Collaborate with academic institutions so that EMS education is recognized as an academic achievement, resulting in academic credit, and require such partnerships as a condition of accreditation.

*Jay Walker lives in rural Pennsylvania. He wants to become a paramedic, although he is not near any EMS education program. He enrolls in a program that requires him to attend video conferences, and work at home via computer. He spends one week per month at the program's base in the city, where he acquires laboratory and clinical experience. At the end of the program his time in the city is increased. When Jay graduates he can transfer his academic credits to the state university, and continue his education while working part-time as a paramedic.*

**Potential Participants**

**Lead:** EMS education programs, JRC, NAEMSE, NCSEMSTC.

**Contributing:** AAMS, AAOS, AAP, ACEP, ACS, colleges and universities, ENA, Fire and Emergency Television Network, IAFC, IAFF, NAEMSP, NAEMT, NASEMSD, NFA, NHTSA, NREMT, publishers, SAEM.

**EMS Agenda for the Future:**  
Education Systems • Human Resources

**NATIONAL ACTION:**  
**Develop education bridging programs.**

**OBJECTIVES:**

**Short Term**

Identify core elements that are common to various health professionals' education.

**Intermediate Term**

Incorporate common relevant features of other health professionals' curricula core contents into EMS education core contents.

**Long Term**

Collaborate with health professional education programs to develop bridging programs to help individuals earn additional credentials, or move from one discipline to another.

*A task force is convened to examine the curricula of several health professional education programs. Features that are common to all, and are relevant to EMS, are included in EMS education core contents. Subsequently, when EMS provider Jane Perry wishes to earn additional credentials, her pursuit is facilitated by her previous education.*

**Potential Participants**

**Lead:** NAEMSE, NCSEMSTC, NREMT.

**Contributing:**

AAOS, AAP, ACS, CAAHEP, colleges and universities, EMS education programs, ENA, IAFC, IAFF, JRC, NAEMSP, NASEMSD, NHTSA, NFA.

**EMS Agenda for the Future:**  
Education Systems • EMS Research • Human Resources

**LOCAL ACTION:**  
**Develop collaborative efforts with academic institutions.**

**OBJECTIVES:**

**Short Term**

Identify academic institutions with which EMS systems and EMS education programs can establish liaisons.

**Intermediate Term**

Establish liaisons among academic institutions, EMS systems and EMS education programs.

**Long Term**

Develop collaborative efforts in areas such as education, management training, and research among academic institutions, EMS systems, and EMS education programs.

*Bingham EMS initiates a meeting with representatives of local EMS education programs and the state university. Mutual areas of interest are identified. Subsequently, a plan is developed to implement educational and research endeavors that expand educational opportunities, enhance professional development, and aid EMS research.*

**Potential Participants**

**Lead:** Colleges and universities, EMS education programs, EMS provider agencies.

**Contributing:** AAA, AACEM, AAUAP, ASPH, CAAHEP, NAEMSE, NFA, state EMS lead agencies.

**EMS Agenda for the Future:**  
Public Education • Integration of Health Services • Prevention

**LOCAL ACTION:**

**Create public education-oriented community partnerships.**

**OBJECTIVES:**

**Short Term**

Identify community organizations interested in or currently providing public education in EMS-related issues.

**Intermediate Term**

Develop partnerships that include community members to determine the public's educational needs regarding its role in prevention and as EMS system clients, bystanders at emergency scenes, and EMS consumers.

**Long Term**

Develop community health improvement partnerships that include EMS and focus on implementing public education programs.

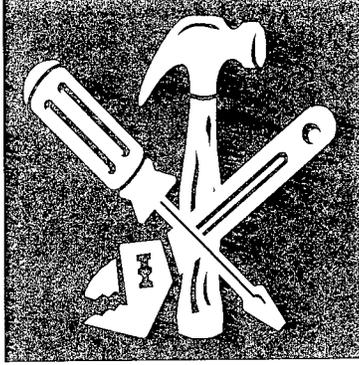
*Bailey EMS finds its response in its largely rural area is hampered by inadequate address postings not easily seen from the street. EMS system representatives meet with other public safety officials, civic groups, and major employers. Over a two-month period they evaluate the problem and implement strategies to correct it. The work of the partnership, all participating in a community-wide education project, results in well-posted address signs at 100% of area residences and businesses.*

**Potential Participants**

**Lead:** EMS provider agencies, state EMS lead agencies.

**Contributing:** ACEP, AHA, APHA, ARC, community groups, governor's highway safety agencies, health care insurers, health care networks, hospitals, IAFC, IAFF, medical societies, NSC, public health agencies, social services agencies.

# Creating Tools and Resources



**EMS Agenda for the Future:  
EMS Research**

**NATIONAL ACTION:  
Identify and develop sources for EMS-related  
research funding.**

**OBJECTIVES:**

**Short Term**

Identify potential private and government funding sources for EMS research.

**Intermediate Term**

Develop and distribute a catalogue of potential EMS research funding sources, including profiles of pertinent agencies, organizations, and foundations, in order to stimulate research grant applications.

**Long Term**

Advocate for increased state and federal appropriations for health care research related to EMS issues.

*The Society of Academic Emergency Medicine (SAEM) develops and distributes a catalogue of potential funding sources for EMS research. To assist grant writers, it includes information about the agencies and organizations. As awareness of the possibilities for research funding is enhanced, the volume of quality grant applications increases. The need for increased EMS research funds is further validated.*

**Potential Participants**

**Lead:** ACEP, HRSA, NAEMSP, NHTSA, SAEM.

**Contributing:** AAA, AAP, ACS-COT, AHA, AHCPR, CFSI, corporations, DHHS, ENA, foundations, HRSA/MCHB, IAFC, IAFF, medical device manufacturers, medical schools, NAEMSE, NAEMT, NASEMSD, NIH, physician organizations, USFA.

**EMS Agenda for the Future:**  
 EMS Research • Legislation and Regulation

**NATIONAL ACTION:**

**Enhance coordination of the federal government’s emergency health care research efforts.**

**OBJECTIVES:**

**Short Term**

Develop a clearinghouse for information about federal EMS research assistance.

**Intermediate Term**

Identify an agency or mechanism to coordinate federal government EMS research assistance.

**Long Term**

Designate an entity, such as a foundation, institute, agency or commission, to have responsibility for steering the federal government’s emergency health care research efforts.

*A task force representing government agencies and several EMS-interested organizations is formed. It evaluates feasible options for improving coordination of federal EMS research assistance. The task force’s findings and recommendations are submitted to the U.S. Congress for action. Subsequently, an emergency health care study section is formed within NIH.*

**Potential Participants**

**Lead:** AHCPR, HRSA, NHTSA.

**Contributing:** AAA, AAP, ACEP, ACS, AHA, FEMA, FICEMS, IAFC, IAFF, MCHB, NAEMSE, NAEMSP, NAEMT, NASEMSD, NEMSA, NIH, NFA, SAEM, US Congress, USFA.

**EMS Agenda for the Future:**  
EMS Research • Medical Direction • Education Systems

**NATIONAL AND LOCAL ACTION:**  
**Increase the number of physicians dedicated to EMS research.**

**OBJECTIVES:**

**Short Term**

Emphasize research within the curricula of EMS fellowship programs.

**Intermediate Term**

Expand the number of funded EMS fellowship programs.

**Long Term**

Cultivate individuals dedicated to EMS research.

*The National Association of EMS Physicians (NAEMSP) and the Society for Academic Emergency Medicine (SAEM) develop a model research curriculum for EMS fellowships. The model is adapted within each fellowship program, and creates EMS physicians with research credentials. The number of academic emergency physicians with EMS research interests increases, and the quantity and quality of EMS research is enhanced.*

**Potential Participants**

**Lead:** ACEP, EMS fellowship directors, NAEMSP, SAEM.

**Contributing:** AACEM, AAP, ABEM, CORD.

**EMS Agenda for the Future:  
EMS Research**

**NATIONAL AND LOCAL ACTION:  
Cultivate EMS research within academic programs.**

**OBJECTIVES:**

**Short Term**

Include EMS research as a component of academic programs' research agendas.

**Intermediate Term**

Develop and implement well-designed EMS research studies, including multi-center trials, which address national health care issues.

**Long Term**

Secure funding to support EMS research centers.

*Several academic emergency medicine programs collaborate, and successfully complete a national multi-center study of automatic external defibrillation use by non-traditional first responders. Their efforts result in a stable alliance capable of securing funds to conduct future large-scale EMS research projects. These centers and investigators are now experienced enough to secure national funding as centers of research excellence. This provides a stable research network for ongoing and future EMS research.*

**Potential Participants**

**Lead:** AACEM, ACEP, NAEMSP, SAEM.

**Contributing:**

AHCPR, colleges and universities, CORD, departments of emergency medicine, EMS fellowships, EMS provider agencies, EMS researchers, NAEMSE.

**EMS Agenda for the Future:**  
Legislation and Regulation • Education Systems

**STATE ACTION:**

**Enhance the technical assistance provided by state EMS lead agencies.**

**OBJECTIVES:**

**Short Term**

Establish technical assistance standards, consistent with the *EMS Agenda for the Future*, for state EMS lead agencies, to be evaluated during the National Highway Traffic Safety Administration's (NHTSA) state EMS assessments.

**Intermediate Term**

Disseminate information regarding successful EMS technical assistance projects and programs conducted by various states.

**Long Term**

Provide state EMS lead agencies with the authority and resources to perform technical assistance.

*The National Association of State EMS Directors (NASEMSD) develops a template for an EMS quality improvement tool. Several state EMS lead agencies adapt the model for their circumstances and distribute it. This provides guidance to EMS systems that implement the adapted model.*

**Potential Participants**

**Lead:** NASEMSD, NHTSA, state EMS lead agencies, state legislatures.

**Contributing:** ACEP, EMS provider agencies, NAEMSP, NCSL.

**EMS Agenda for the Future:**  
 Legislation and Regulation • Human Resources

**STATE AND LOCAL ACTION:**  
**Reduce EMS providers' risk of liability.**

**OBJECTIVES:**

**Short Term**

Identify unusual situations that place EMS providers at higher liability risk.

**Intermediate Term**

Develop strategies to reduce EMS providers' risk of liability, possibly including the development of model legislation that affords them limited protection.

**Long Term**

Implement programs, possibly including legislation, that reduce EMS providers' risk of liability.

*Avondale EMS providers treat a 16 year old, pregnant girl who is experiencing abdominal pain. She refuses to go to the hospital. The patient is a minor, and in this state she is not emancipated until she gives birth. However, no parents or guardians are available, and the patient cannot be convinced, short of using force, to be taken to a hospital. The EMS providers recognize this as a high-risk situation. They follow guidelines promulgated by the state EMS lead agency and the attorney general. Though the patient eventually has a sub-optimal outcome, EMS providers are protected from liability by having followed the established guidelines.*

**Potential Participants**

**Lead:** NAEMT, NASEMSD.

**Contributing:**

AAA, ABA, ACEP, AHCL, American Medical-Legal Foundation, ENA, IAFC, IAFF, medical device manufacturers, NAEMSP, NCSL, NFA, physician organizations, state attorneys general, state legislatures.

**STATE ACTION:**

**Eliminate barriers and improve appropriate use of EMS.**

**OBJECTIVES:**

**Short Term**

Educate local, state, and federal elected officials regarding the importance of eliminating barriers to emergency medical care access.

**Intermediate Term**

Pass state legislation or adopt regulations that eliminate financial barriers to appropriate and timely emergency care, including EMS.

**Long Term**

Educate community members about appropriate use of the EMS system, and other points of access to health care.

*Mary Hollis experiences a sudden onset of chest pain. Her husband summons EMS for help. The situation and the state's "prudent layperson" law justify his actions. The law was passed after recommendations were made by the state EMS lead agency and several other EMS-interested organizations. Mary receives appropriate emergency care and is transported to a hospital affiliated with her health care network.*

**Potential Participants**

**Lead:** ACEP, HRSA/MCHB, NASEMSD, NHTSA.

**Contributing:**

AAA, AAP, ACS, ATS, EMS provider agencies, EMS providers, ENA, health care insurers, IAFC, IAFF, NACCHO, NAEMSE, NAEMSP, NAEMT, NAHP, NCSL, NEMSA, NFA, physician organizations, SAEM, USFA.

**EMS Agenda for the Future:  
System Finance**

**NATIONAL, STATE AND LOCAL ACTION:  
Ensure stable support for EMS infrastructure  
funding.**

**OBJECTIVES:**

**Short Term**

Develop a tool to inventory and assess the costs of EMS infrastructure components.

**Intermediate Term**

Assess the costs associated with providing an EMS infrastructure.

**Long Term**

Educate local, state, and federal government officials and their staff members about the importance of maintaining and improving an EMS infrastructure and the funding it requires.

*The National Highway Traffic Safety Administration (NHTSA) collaborates with the National Association of State EMS Directors (NASEMSD) and other organizations to develop an EMS infrastructure inventory tool. The tool is distributed by state EMS lead agencies to help EMS systems determine their future needs, and help them find appropriate resources.*

**Potential Participants**

**Lead:** EMS provider agencies, NASEMSD, NHTSA, state EMS lead agencies.

**Contributing:**

AAA, APCO, ASPA, ASTHO, CFSI, FEMA, FICEMS, IAFC, IAFF, NEMA, NENA, USFA.

**EMS Agenda for the Future:**  
Human Resources • EMS Research • Medical Direction

**NATIONAL ACTION:**  
**Develop mechanisms for recognizing health professionals with expertise in EMS.**

**OBJECTIVES:**

**Short Term**

Establish guidelines for creating EMS subspecialty credentials for registered nurses and other health care professionals.

**INTERMEDIATE TERM**

Develop EMS subspecialty credentials for registered nurses and other health care professionals.

**Long Term**

Provide processes for registered nurses and other health care professionals to become credentialed as specialists in EMS.

*Susan Tyler is an emergency department nurse who is also responsible for her hospital's interface with the EMS system. She participates in many aspects of medical direction, including quality improvement activities and continuing education planning and implementation. She wants to distinguish herself as a nurse with expertise in the area of EMS, so she completes the credentialing process to become a Certified Emergency Medical Services Nurse (CEMSN).*

**Potential Participants**

**Lead:** ENA.

**Contributing:** AAP, AARC, ACEP, ACS, AMA, ANA, AUPHA, NABN, NAEMSP, NFNA.

**EMS Agenda for the Future:  
Medical Direction**

**NATIONAL AND STATE ACTION:**  
Ensure that EMS medical directors are qualified.

**OBJECTIVES:**

**Short Term**

Develop a national core content for EMS medical director education.

**Intermediate Term**

Provide ample educational opportunities that include the medical director core content.

**Long Term**

Provide EMS medical directors credentials based on their fulfillment of national core content objectives.

*The American College of Emergency Physicians (ACEP) and the National Association of EMS Physicians (NAEMSP) jointly develop a core content for EMS medical director education. The state adapts the core content, requiring evidence of its fulfillment for all new EMS medical directors. Dr. Doug Kaman, who just completed a pediatric-emergency medicine residency, attends an educational program that meets the requirements. He can now receive credentials for an EMS medical director in the state.*

**Potential Participants**

**Lead:** ACEP, NAEMSP, NHTSA.

**Contributing:** AAP, ACS, HRSA/MCHB, NASEMSD, NFA, physician organizations, state EMS lead agencies.

**EMS Agenda for the Future:**  
Medical Direction • EMS Research

**NATIONAL ACTION:**  
**Work to designate EMS as a physician subspecialty.**

**OBJECTIVES:**

**Short Term**

Continue to work to define the specific knowledge and expertise required of physicians who specialize in EMS.

**Intermediate Term**

Enable the American Board of Emergency Medicine (ABEM) to sponsor an EMS subspecialty.

**Long Term**

Petition the American Board of Medical Specialties (ABMS) to designate EMS as a physician subspecialty.

*A multi-organization EMS Subspecialty Task Force continues to work to fulfill the requirements of the American College of Emergency Physicians (ACEP), Society for Academic Emergency Medicine (SAEM), and National Association of EMS Physicians (NAEMSP) to support an EMS subspecialty status. ABEM ultimately petitions ABMS to designate EMS as a subspecialty. Other physician groups in addition to emergency physicians have the opportunity to co-sponsor the subspecialty board. Subsequently, greater numbers of physicians pursue EMS training, acquiring expertise in all of its facets.*

**Potential Participants**

**Lead:** ABEM, ACEP, NAEMSP, SAEM.

**Contributing:** AAFP, AAP, ABMS, ACS, AMA, EMRA.

**EMS Agenda for the Future:**  
Education Systems • Clinical Care

**NATIONAL, STATE AND LOCAL ACTION:**  
**Provide EMS education based on national core contents.**

**OBJECTIVES:**

**Short Term**

Commission the development of national EMS education core contents for EMS providers, consistent with the parameters established in the National EMS Education and Practice Blueprint.

**Intermediate Term**

Incorporate national core contents into EMS educational program curricula.

**Long Term**

Implement a process to regularly review the core content objectives to ensure they reflect the population's dynamic health care needs and the needs of EMS providers.

**Potential Participants**

**Lead:** EMS education programs, JRC, NAEMSE, NHTSA.

**Contributing:** AAMS, AAOS, AAP, ACEP, ACS, AHA, colleges and universities, ENA, IAFC, IAFF, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, NFA, SAEM.

**EMS Agenda for the Future:**

Education Systems • EMS Research • Medical Direction • Legislation and Regulation • System Finance

**NATIONAL AND LOCAL ACTION:**

**Include research, quality improvement, and management-related objectives in EMS education.**

**OBJECTIVES:**

**Short Term**

Develop and provide EMS education that includes research, quality improvement, and management-related objectives.

**Intermediate Term**

Include research, quality improvement, and management-related objectives in the national EMS education core contents.

**Long Term**

Require accredited EMS educational programs to incorporate research, quality improvement, and management-related objectives, and include topic-related questions on credential examinations.

*During a strategic planning exercise, Montgomery EMS realizes that its personnel lack adequate preparation in research, quality improvement, and management. This has hampered efforts to advance the system and provide opportunities for professional development. Work with the regional community college results in greater attention to these areas in initial and continuing EMS education programs. Eventually, Montgomery EMS personnel have a greater appreciation for the importance of research and quality improvement, and they are better prepared to participate in these activities.*

**Potential Participants**

**Lead:** EMS education programs, JRC, NREMT.

**Contributing:** AAMS, AAOS, AAP, ACEP, ACS, colleges and universities, ENA, IAFC, IAFF, NAEMSE, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, NFA, NHTSA, SAEM, USFA.

**EMS Agenda for the Future:**  
Prevention • Legislation and Regulation

**NATIONAL, STATE AND LOCAL ACTION:**  
**Advocate for prevention-focused legislation and regulations.**

**OBJECTIVES:**

**Short Term**

Inform EMS agencies and providers about legislative proposals that may affect illness or injury incidence or severity, or a community's ability to access EMS care.

**Intermediate Term**

Engage in efforts to influence the course of legislative proposals that may affect the incidence or severity of illnesses or injuries, or a community's ability to access EMS care.

**Long Term**

Develop and advocate for state and national EMS agendas for prevention-focused legislative and regulatory priorities.

*The state EMS council organizes a communication network to relay information about state legislative activities that might affect emergency health care. When legislation that would repeal motorcycle helmet laws is proposed, an effective response from the state's EMS organizations and agencies is organized via the network. The state senate votes against the proposed legislation.*

**Potential Participants**

**Lead:** HRSA/MCHB, NHTSA, state EMS lead agencies.

**Contributing:** AAA, ACEP, ACS, AHCPR, ATS, CDC, EMS medical directors, EMS provider agencies, EMS providers, FEMA, IAFC, IAFF, NAEMSP, NAEMT, NASEMSD, NFA, NHAAP, NREMT, STIPDA, Trauma Coalition, USFA.

**EMS Agenda for the Future:**  
Prevention • Integration of Health Services • Information Systems

**NATIONAL, STATE AND LOCAL ACTION:**  
**Improve prevention-related data collection and sharing by EMS.**

**OBJECTIVES:**

**Short Term**

Collaborate with other community agencies, organizations and health care providers to determine how EMS might help fulfill their prevention-related data needs.

**Intermediate Term**

Develop model scene survey formats for risk assessments for various illnesses and injuries.

**Long Term**

Revise data collection tools, using evolving technologies and models, in order to improve prevention-related EMS data collection and sharing.

*Metro EMS collaborates with the area Agency on Aging to arrange follow-up for some of its patients who are not transported. The Agency on Aging, however, lacks up-to-date information on the incidence of various injuries occurring in the home. Subsequently, Metro EMS completes a domicile risk analysis for every elderly patient not being transported, and shares that information with the Agency on Aging. The risk analysis format was adopted from the Centers for Disease Control and Prevention (CDC).*

**Potential Participants**

**Lead:** EMS provider agencies.

**Contributing:** AAA, AAP, ACEP, AHCPR, APHA, CDC, EMS medical directors, FEMA, health care networks, hospitals, HRSA/MCHB, IAFC, IAFF, medical societies, NAC, NAEMSP, NASEMSD, NSC, NFA, NHTSA, NLC, public health agencies, social service agencies, state EMS lead agencies, STIPDA, USFA.

**EMS Agenda for the Future:**  
 Communication Systems • Medical Direction • Public Access

**NATIONAL AND LOCAL ACTION:**  
**Maintain up-to-date EMS dispatching and communications standards.**

**OBJECTIVES:**

**Short Term**

Convene a multidisciplinary conference to develop consensus standards for EMS dispatching and communications.

**Intermediate Term**

Ensure that EMS communications centers provide appropriate medically-directed pre-arrival instructions to EMS callers.

**Long Term**

Evaluate and continually update nationwide EMS dispatching and communications standards.

*The public safety answering point for Prescott County recently established a standard process for providing pre-arrival instructions to EMS callers. Within days a child was saved from drowning because the new procedure helped the call-taker provide pre-arrival care instructions to another child; who was the only other person at the scene.*

**Potential Participants**

**Lead:** APCO, ASTM, NAEMD.

**Contributing:** AAP, ACS, AHA, ATS, EMS communications centers, EMS provider agencies, HRSA/MCHB, NAC, NAEMSE, NAEMSP, NASEMSD, NHAAP, NHTSA, NLC.

**EMS Agenda for the Future:**

Communication Systems • EMS Research • Information Systems • Evaluation

**NATIONAL ACTION:**

**Optimize EMS data collection.**

**OBJECTIVES:**

**Short Term**

Convene a multidisciplinary panel to consider potential primary and secondary uses for the data captured during EMS encounters.

**Intermediate Term**

Implement research and pilot projects to determine the value of specific data acquisition and real-time data transfer.

**Long Term**

Continuously evaluate the effects of real-time data transfer, including related costs, outcomes, and confidentiality issues.

*South Anthony EMS is participating in a pilot project to transmit video images of patients to its receiving hospital. The project uses the procedure in specific circumstances, and it includes evaluation of the related costs and outcome benefits*

**Potential Participants**

**Lead:** NASEMSD, NHTSA.

**Contributing:** AAA, AAP, ACEP, ACS, AhA, AMIA, APCO, APHA, ATS, CDC, EMS provider agencies, FEMA, IAFC, IAFF, medical device manufacturers, NACCHO, NAEMSQP, NAEMSP, NAEMT, NEMSA, NRHA, SAEM.

**EMS Agenda for the Future:**  
Information Systems • Human Resources • Education Systems

**NATIONAL, STATE AND LOCAL ACTION:**  
Increase the utilization of a uniform data element set within EMS information systems.

**OBJECTIVES:**

**Short Term**

Educate EMS managers about data and information systems through courses such as Emergency Medical Services Information Systems.

**Intermediate Term**

Incorporate uniform data elements and definitions into existing information systems.

**Long Term**

Review and periodically update the uniform pre-hospital data element set.

*The Southern EMS Council is pursuing a venture to allow all its area EMS provider agencies to electronically record patient care information. As part of the plan, national uniform data elements are included in the information system. This process creates opportunities to educate EMS managers about EMS data and information systems.*

**Potential Participants**

**Lead:** EMS provider agencies, NASEMSD, NHTSA.

**Contributing:** AAA, AAP, ACEP, ACS, AMIA, IAFC, NAEMSP, NAEMT, NFA, state EMS lead agencies, USFA.

**EMS Agenda for the Future:  
Information Systems**

**STATE AND LOCAL ACTION:**

**Ensure that EMS information systems serve their purposes.**

**OBJECTIVES:**

**Short Term**

Determine the desired output before establishing an EMS information system.

**Intermediate Term**

Maintain the ability to query EMS information systems in order to maximize their potential usefulness.

**Long Term**

Provide reports to individuals who need information, including those who generate the system's data, or enable them to query the EMS information system.

*Jarvis EMS is developing a new information system to help manage data that are currently lost and cannot be analyzed. Among their first steps is the creation of a task force that includes representatives from other area health and public safety agencies, to help determine the desired output of the system and how information will be shared.*

**Potential Participants**

**Lead:** EMS provider agencies.

**Contributing:**

AMIA, ANA, FEMA, health care networks, hospitals, NAC, NACCHO, NLC, public health agencies, public safety agencies, social service agencies, state EMS lead agencies, USFA.

**EMS Agenda for the Future:**  
Evaluation • Education Systems

**STATE AND LOCAL ACTION:**  
Evaluate EMS on a continuous basis.

**OBJECTIVES:**

**Short Term**

Ensure that every EMS provider knows the importance of, and has basic knowledge about evaluation principles and technologies.

**Intermediate Term**

Develop and disseminate EMS evaluation models.

**Long Term**

Adapt EMS evaluation models at both the state and local level, and use them for continuous evaluation of EMS.

*Renona EMS is assessing its own evaluation processes. It subsequently adapts several evaluation models from the state EMS lead agency. These models are used as a basis for evaluating EMS providers and other aspects of the system. Evaluation results are used to develop continuing education programs and make system improvements.*

**Potential Participants**

**Lead:** EMS provider agencies, state EMS lead agencies.

**Contributing:**

AAA, ACEP, EMS medical directors, EMS providers, IAFC, IAFF, NAEMSE, NAEMSP, NAEMSQP, NAEMT, NASEMSD, NFA, NHTSA.

**EMS Agenda for the Future:**  
Evaluation • Public Education

**LOCAL ACTION:**  
Include the community in EMS evaluation.

**OBJECTIVES:**

**Short Term**

Solicit community-based groups and other community members for EMS evaluation support.

**Intermediate Term**

Use evaluation techniques that incorporate community input, and provide the community with the evaluation results.

**Long Term**

Develop and distribute EMS report cards to communities.

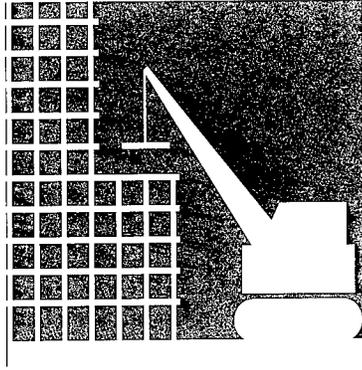
*Gulf Beach EMS representatives periodically meet with neighborhood civic groups. At these meetings, ideas for community involvement in EMS evaluation are discussed. The evaluation results are shared with the respective neighborhoods in the form of a report card. Advocated by the state EMS lead agency, report cards are eventually adapted by other surrounding communities.*

**Potential Participants**

**Lead:** EMS provider agencies.

**Contributing:** Community groups and organizations, EMS medical directors, medical societies, NAEMSQP, NASEMSD, NCQA, state EMS lead agencies.

# Developing Infrastructure



**EMS Agenda for the Future:  
Legislation and Regulation**

**NATIONAL AND STATE ACTION:  
Educate government officials regarding EMS  
issues.**

**OBJECTIVES:**

**Short Term**

Enhance EMS awareness campaigns that are directed toward state legislators and U.S. Congress members.

**Intermediate Term**

Create and maintain a program to track federal EMS planning and development efforts.

**Long Term**

Organize a multidisciplinary task force to examine relevant EMS issues and make recommendations regarding federal EMS activities.

*An annual meeting of representatives from federal agencies involved in EMS and EMS-interested organizations is established. On the agendas are issues of common interest, including the roles of federal leadership. Subsequently, a standing committee is convened to recommend ways in which government agencies might best fulfill these roles.*

**Potential Participants**

**Lead:** HRSA/MCHB, NAEMSP, NASEMSD, NHTSA.

**Contributing:** AAA, AAP, ACEP, ACS, AHA, AHCPR, ATS, EMS provider agencies, ENA, IAFC, IAFF, NAEMSE, NAEMT, NCSEMSTC, NCSL, NFA, SAEM, state legislatures, US Congress, USFA.

**EMS Agenda for the Future:**  
System Finance • Clinical Care

**NATIONAL ACTION:**

**Resolve conflicting EMS finance and reimbursement issues.**

**OBJECTIVES:**

**Short Term**

Promote awareness among government and health care finance officials regarding conflicting EMS finance and reimbursement issues.

**Intermediate Term**

Develop pilot programs for the Health Care Financing Administration (HCFA) and Medicaid to reimburse EMS provider agencies on the bases of their response and medical treatment for perceived emergencies.

**Long Term**

Create a relative value reimbursement system to be used by HCFA and Medicaid to pay for EMS without requiring patient transportation.

*The American Ambulance Association (AAA), HCFA, and the International Association of Fire Chiefs (IAFC), with other input, collaborate to develop several pilot projects to evaluate innovative methods for paying for EMS. Knowledge gleaned from the projects is used to create a relative value system for paying for EMS. Reimbursement for services is not dependent on patient transportation. Soon, the system is implemented in areas across the country.*

**Potential Participants**

**Lead:** AAA, AAHP, HCFA, HIAA, IAFC.

**Contributing:** AAP, ACEP, ACS-COT, health care insurers, IAFF, NAEMSP, NASEMSD.

**EMS Agenda for the Future:**  
Human Resources • Education Systems

**STATE AND LOCAL ACTION:**  
**Ensure that EMS personnel are optimally prepared.**

**OBJECTIVES:**

**Short Term**

Prepare EMS personnel for all changes in expectations of them to provide health services.

**Intermediate Term**

Identify the educational experiences and cultural sensitivity required by EMS personnel in order to meet the identified needs of the community.

**Long Term**

Continuously ensure that all EMS personnel possess the requisite education, skills, and cultural awareness to meet community needs.

*Peach County EMS is planning to use its personnel to perform limited in-home health risk analyses during non-peak hours. Although personnel will be using standardized checklists, the administration and medical director invest a great deal of time anticipating the type of questions and ancillary tasks that might be requested of the EMS personnel, and cultural issues that might be factors during the home visits. Educational programs are then conducted to prepare the EMS personnel. They include lessons in the community's culture taught by some of the neighborhood residents. When the health risk analyses begin, the EMS personnel are well prepared, and the feedback from the community is exceptional.*

**Potential Participants**

**Lead:** EMS provider agencies, NAEMSE, NCSEMSTC.

**Contributing:**

EMS education programs, EMS medical directors, EMS providers, IAFF, JRC, NAEMSP, NFA, state EMS lead agencies.

**EMS Agenda for the Future:**  
Human Resources • Education Systems • Clinical Care

**NATIONAL ACTION:**

**Update and adopt the *National EMS Education and Practice Blueprint*.**

**OBJECTIVES:**

**Short Term**

Develop a system to regularly update the National EMS Education and Practice Blueprint and use it to promote consistency in the levels of EMS practice.

**Intermediate Term**

Ensure that EMS education core contents comply with National EMS Education and Practice Blueprint guidelines.

**Long Term**

Authorize the practice of EMS personnel based upon National EMS Education and Practice Blueprint parameters.

**Potential Participants**

**Lead:** JRC, NASEMSD, NHTSA, NREMT.

**Contributing:** ACEP, EMS education programs, NAEMSE, NAEMSP, NCSEMSTC, NFA, state EMS lead agencies, USFA.

**NATIONAL ACTION:**  
**Improve our understanding of EMS occupational health and safety hazards.**

**OBJECTIVES:**

**Short Term**

Identify psychological and physical EMS occupational health and safety hazards.

**Intermediate Term**

Collaborate with academic institutions and other interested experts to study occupational health and safety issues.

**Long Term**

Conduct further research about EMS occupational health and safety issues.

*Bridgetop's occupational health department realizes that the number of shoulder injuries experienced by EMS personnel has increased over the past three years. The department collaborates with the state university to study musculo-skeletal injuries among all EMS providers in the state. Using grant funds, they implement a surveillance system. Subsequently, a multi-center study is undertaken to determine the effectiveness of different strategies for reducing the incidence and severity of shoulder injuries.*

**Potential Participants**

**Lead:** IAFC, IAFF, NAEMT.

**Contributing:**

AAA, ACEP, APA, CDC, colleges and universities, EMS providers, EMS researchers, ENA, ICISF, NAEMSE, NAEMSP, NFA, NFNA, NFPA, OSHA, USFA, workmen's compensation carriers.

**EMS Agenda for the Future:**  
Human Resources • Education Systems

**LOCAL ACTION:**

**Increase the cultural sensitivity and diversity of the EMS workforce.**

**OBJECTIVES:**

**Short Term**

Identify cultural issues that affect EMS.

**Intermediate Term**

Implement programs that will enhance the cultural sensitivity of the EMS workforce.

**Long Term**

Implement strategies, such as increasing access to EMS educational programs, that expand the cultural diversity of the EMS workforce so that it is representative of the population it serves.

*Caperton is a culturally diverse city, but its EMS workforce is not. Subsequent to a few problem cases, EMS administrators meet with representatives of several community groups. They identify several cultural issues that need to be addressed. The EMS workforce participates in an educational program that involves a culturally diverse group of community members. EMS providers also begin to attend civic meetings in neighborhoods other than their own. Greater visibility and accessibility of the EMS providers in different communities causes diverse young people to aspire to become EMS professionals.*

**Potential Participants**

**Lead:** Community organizations, EMS medical directors, EMS provider agencies.

**Contributing:** AAA, ACEP, EMS providers, ENA, IAFC, IAFF, NAEMSP, NAEMT, NFA, NFNA, NFPA, NHTSA, state EMS lead agencies.

**EMS Agenda for the Future:**  
Human Resources • Educational Systems • Evaluation

**LOCAL ACTION:**  
**Implement and evaluate stress management programs.**

**OBJECTIVES:**

**Short Term**

Develop and implement a plan for managing occupational stress among EMS personnel.

**Intermediate Term**

Educate EMS personnel about stress management.

**Long Term**

Evaluate and improve stress reduction and management programs.

*Matson County EMS offers in-kind services to the community mental health agency in exchange for an assessment of stress indicators among EMS personnel. Several factors are identified as contributing to moderately high levels of stress. Over the ensuing year, system changes are made, and a plan for addressing critical incident stress is implemented. Education programs are conducted. Follow-up assessments reveal fewer stress indicators among EMS personnel.*

**Potential Participants**

**Lead:** Community mental health providers, EMS provider agencies.

**Contributing:**

ACEP, APA, EMS medical directors, ENA, FEMA, IAFF, ICISF, NAEMSE, NAEMSP, NAEMT, NFA, NFNA, NFPA, state EMS lead agencies, USFA.

**EMS Agenda for the Future:**  
Human Resources • Legislation and Regulation • Education Systems

**NATIONAL AND STATE ACTION:**  
**Create a system for reciprocity of EMS provider credentials.**

**OBJECTIVES:**

**Short Term**

Develop consensus regarding the educational requirements for EMS providers at standard levels.

**Intermediate Term**

Standardize the mechanisms used to verify the competency of, and issue credentials to, EMS personnel.

**Long Term**

Eliminate legal barriers to intra- and interstate reciprocity of EMS provider credentials.

*Ryan Baum completes a paramedic-practitioner program that includes standard paramedic training plus additional locally adapted education and skills. The education program is accredited as a paramedic program. Four years later Ryan relocates to a different state. Although his academic credentials are valid there, the new EMS agency recognizes those components of his education that are "standard and accredited". Since Ryan has demonstrated his competency by a national standard, his credentials are recognized in the new state by reciprocity, and he is eligible to seek employment as a paramedic.*

**Potential Participants**

**Lead:** NASEMSD, state EMS lead agencies.

**Contributing:** AAP, ACEP, ACS, JRC, NAEMSE, NAEMSP, NAEMT, NCSEMSTC, NFA, NHTSA, NREMT, state legislatures.

**EMS Agenda for the Future:**  
Medical Direction • Legislation and Regulation

**NATIONAL AND STATE ACTION:**  
**Provide qualified contemporaneous EMS medical direction.**

**OBJECTIVES:**

**Short Term**

Determine the current local and state credential requirements for individuals who provide on-line (contemporaneous) medical direction.

**Intermediate Term**

Develop credential standards for on-line medical direction providers.

**Long Term**

Require appropriate credentials for all providers of on-line medical direction.

*Bob Klein, MD is an internist who does locum tenens work. He moves to Maury for two months, where he will work in a clinic and the emergency department (ED). While at the ED, he will be required to provide on-line medical direction to EMS providers. Before he can do so, he must earn the credentials that ensure he is familiar with the state's laws, the EMS provider capabilities, and the local protocols.*

**Potential Participants**

**Lead:** NAEMSP, NASEMSD.

**Contributing:** AAP, ACEP, ACS-COT, EMS medical directors, EMS provider agencies, ENA, medical societies, NAEMT, state EMS lead agencies.

**EMS Agenda for the Future:**  
 Medical Direction • Legislation and Regulation • System Finance

**NATIONAL AND STATE ACTION:**

**Ensure that each state has a designated state EMS medical director.**

**OBJECTIVES:**

**Short Term**

Develop a model state EMS medical director job description and position justification.

**Intermediate Term**

Disseminate information to state EMS lead agencies and legislators about potential funding alternatives for state EMS medical director positions.

**Long Term**

Establish the position of, and provide the funding for, an EMS medical director in each state.

*The National Association of EMS Physicians (NAEMSP) and the National Association of State EMS Directors (NASEMSD) collaborate to develop a model state EMS medical director job description and position justification. They also investigate current funding strategies, and make alternative suggestions. The information is eventually disseminated and used to establish a state EMS medical director in each state.*

**Potential Participants**

**Lead:** ACEP, NAEMSP, NASEMSD.

**Contributing:** NCSL, state EMS lead agencies, state legislatures.

**EMS Agenda for the Future:**

Education Systems • Human Resources • Medical Direction • Clinical Care • Evaluation

**STATE AND LOCAL ACTION:**

**Ensure that EMS providers are prepared to perform their required tasks.**

**OBJECTIVES:**

**Short Term**

Conduct local task analyses to determine the cognitive and technical skills required for EMS providers functioning at various levels and environments, including interfacility patient transfers.

**Intermediate Term**

Determine the structure and content of EMS educational programs, including initial and continuing education, and the appropriate staffing necessary to continuously meet the needs identified by local task analyses.

**Long Term**

Evaluate and update initial and continuing education programs and staffing complements in order to meet the needs identified through local task analyses, and ensure that secondary patient transfers are conducted using appropriate staff and medical direction.

*New Market EMS conducts a thorough analysis of the tasks required of its personnel, carefully evaluating the cognitive requirements for the duties they perform. The analysis reveals that the EMS providers are not well prepared for many of the patients they encounter, including their on-going therapy required during interfacility emergency transfers. Subsequently, the agency works with the community college to develop educational programs for newly hired personnel and to update continuing education offerings.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies.

**Contributing:** AAA, AAMS, AAOS, ACEP, ACS, AMPA, colleges and universities, EMS education programs, ENA, IAFC, IAFF, JRC, NAEMSE, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, NFNA, NFPA, NREMT, state EMS lead agencies.

**NATIONAL, STATE AND LOCAL ACTION:**  
**Provide medical direction for EMS education.**

**OBJECTIVES:**

**Short Term**

Develop and disseminate a multi-disciplinary position paper that provides guidelines for the role medical direction plays in EMS educational programs.

**Intermediate Term**

Require EMS educational programs, including continuing education, to designate a medical director whose role is consistent with those described in a widely endorsed position paper.

**Long Term**

Ensure that the medical direction of EMS educational programs includes active participation during the planning, implementation, and evaluation stages.

*A multidisciplinary group, comprised of representatives from several organizations, develops a position paper regarding the medical direction of EMS education. The paper is presented for endorsement by all EMS-interested organizations. EMS educational programs are encouraged to follow the established guidelines. Subsequently, the recognition and accreditation of EMS educational programs depend upon the inclusion of medical direction.*

**Potential Participants**

**Lead:** ACEP, EMS education programs, NAEMSE, NAEMSP.

**Contributing:** AAMS, AAOS, AAP, ACS, colleges and universities, ENA, IAFC, IAFF, JRC, NAEMT, NASEMSD, NCSEMSTC, NFA, NREMT, SAEM, state EMS lead agencies.

**EMS Agenda for the Future:**  
Education Systems • Human Resources

**NATIONAL ACTION:**  
**Require EMS education programs to be accredited.**

**OBJECTIVES:**

**Short Term**

Evaluate the cost-effectiveness and other potential benefits of EMS educational programs being accredited by a national body.

**Intermediate Term**

Develop strategies to facilitate national accreditation of EMS educational programs.

**Long Term**

Adopt accreditation by a national body as the standard by which EMS educational programs are evaluated.

**Potential Participants**

**Lead:** JRC, NASEMSD.

**Contributing:** EMS education programs, NAEMSE, NCSEMSTC, NREMT.

**EMS Agenda for the Future:**  
Education Systems • Human Resources

**NATIONAL AND LOCAL ACTION:**  
**Develop EMS education bridging programs.**

**OBJECTIVES:**

**Short Term**

Develop pilot bridging educational programs that enable EMS providers to move from one provider level to the next.

**Intermediate Term**

Evaluate alternative education approaches to achieving bridging programs' learning objectives, including distance learning and other innovative instructional techniques.

**Long Term**

Integrate bridging educational programs into existing EMS educational programs.

*Beth Christy wishes to advance her EMS provider credentials to the next level. She is able to complete coursework in her hometown via teleconferences and computer simulations. Material that was part of her previous educational experience was a prerequisite, and the current coursework is not redundant. At the conclusion of the coursework, she is prepared to begin an internship prior to receiving her new credentials.*

**Potential Participants**

**Lead:** EMS educational programs, NAEMSE, NCSEMSTC.

**Contributing:**

AAOS, AAP, ACEP, ACS, colleges and universities, ENA, IAFC, IAFF, JRC, NAEMSP, NAEMT, NASEMSD, NFA, NREMT, SAEM.

**EMS Agenda for the Future:**  
Education Systems • Human Resources

**NATIONAL ACTION:**  
Ensure that all health professionals have basic knowledge of EMS issues.

**OBJECTIVES:**

**Short Term**

Survey other health care professional educational programs to determine the extent to which EMS-related objectives are included.

**Intermediate Term**

Provide opportunities for all health care professionals to gain EMS exposure, and provide other health care professional educational programs with EMS core content objectives.

**Long Term**

Incorporate EMS-related core content objectives in the curricula of other health care professional educational programs.

*The National Association of EMS Educators (NAEMSE) leads a multidisciplinary effort to identify EMS-related core content objectives that should be included in a health care professional's education. Subsequent collaboration with colleges and universities leads to the inclusion of the objectives in other health care professional educational programs.*

**Potential Participants**

**Lead:** AAMC, CAAHEP, NAEMSE.

**Contributing:** AAP, ACEP, ACS, Allied Health Dean's Association, ANA, colleges and universities, ENA, JRC, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, NFA, NHTSA, NREMT, SAEM.

**EMS Agenda for the Future:**  
Public Education • Education Systems • Prevention

**NATIONAL AND LOCAL ACTION:**  
**Engage in public education.**

**OBJECTIVES:**

**Short Term**

Appoint an individual(s) within each EMS agency to be responsible for public education initiatives.

**Intermediate Term**

Establish, within each EMS agency, a continuous public education program that includes prevention activities, and is distinct from public relations.

**Long Term**

Include objectives in EMS education core contents related to EMS providers' roles in public education.

*Paramedic Mark Gauthier is particularly interested in public health issues and education. He capitalizes on his interests and ongoing education by becoming the Mahoning EMS Community Education Officer. His duties include planning, overseeing, and evaluating the agency's public education efforts. Current projects are directed toward prevention and appropriate emergency care access.*

**Potential Participants**

**Lead:** EMS provider agencies, NHTSA.

**Contributing:** AAA, AAOS, ACEP, ACS, EMS providers, IAFC, IAFF, JRC, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, NFA, NREMT, SAEM, state EMS lead agencies, USFA.

**EMS Agenda for the Future:**  
Public Education • Prevention • Evaluation

**LOCAL ACTION:**

**Conduct public education that is relevant and meaningful to the community.**

**OBJECTIVES:**

**Short Term**

Determine the incidence of relevant conditions and events in the community and the base knowledge of the community members prior to initiating specific public education projects and programs.

**Intermediate Term**

Continuously evaluate the effects of public education and prevention efforts.

**Long Term**

Revise and update EMS public education and prevention efforts as indicated by needs assessments and evaluation results, in accordance with contemporary quality improvement models.

*Buckley EMS is planning next year's public education program. As current projects are evaluated, they find that their "buckle up" project has been effective. The proportion of unrestrained occupants in motor vehicle crashes has decreased over the past few years. Since ten community members suffered significant head injuries as a result of bicycle falls during the past year, the EMS agency decides to also target bicycle safety for the upcoming year.*

**Potential Participants**

**Lead:** EMS provider agencies.

**Contributing:** NHAAP, APHA, ATPM, Children's Safety Network, Coalition for America's Children, colleges and universities, EMS-C, EMS medical directors, Farm Safety for Kids, NASEMSD, NFA, Safe Kids Coalition, state EMS lead agencies, STIPDA, USFA.

**EMS Agenda for the Future:**  
Public Education • System Finance • Prevention

**LOCAL ACTION:**

**Incorporate innovative techniques and technologies in public education.**

**OBJECTIVES:**

**Short Term**

Use the media to enhance public education efforts.

**Intermediate Term**

Convene focus groups at national and community forums to evaluate tools and technologies for achieving EMS public education goals.

**Long Term**

Incorporate state-of-the-art technology in EMS public education programs.

*Keystone school district maintains an internet web page as a means of conveying important information to its students and their parents. The page includes announcements and up-to-date information about assignments and schedules. As a result of collaboration with the EMS system, the page also contains information about children's safety issues, community class schedules and other important EMS news. The EMS information is updated frequently, and the number of readers is monitored.*

**Potential Participants**

**Lead:** EMS provider agencies, media outlets.

**Contributing:** AAP, ACEP, ACS, AHA, ATS, EMS medical directors, HRSA/MCHB, IAFC, IAFF, NAEMSE, NAEMSP, NAEMT, NASEMSD, NHAAP, NHTSA.

**EMS Agenda for the Future:**  
Prevention • Human Resources • Education Systems

**NATIONAL AND LOCAL ACTION:**  
Maintain a prevention-oriented atmosphere at the EMS workplace.

**OBJECTIVES:**

**Short Term**

Include topics related to preventing EMS workforce injuries and illnesses during the initial and continuing education of all EMS providers and managers.

**Intermediate Term**

Maintain workplace programs to help prevent injuries and illnesses among EMS providers.

**Long Term**

Develop health and safety guidelines for EMS providers.

*The National Association of Emergency Medical Technicians (NAEMT) coordinates a task force to develop a series of "Prevention Begins at Home" programs. The series provides information and models for prevention initiatives. The series is made available for EMS agencies to use in their workforce prevention programs.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies, NHTSA.

**Contributing:** AAA, continuing education accrediting bodies, IAFC, IAFF, JRC, NAEMSE, NAEMT, National Fire Protection Association, NSC, NIOSH, NREMT, OSHA, USFA.

**EMS Agenda for the Future:**  
Prevention • Education Systems

**NATIONAL ACTION:**  
Incorporate “prevention” into the education of EMS providers.

**OBJECTIVES:**

**Short Term**

Adopt “prevention” for both the EMS workforce and community members as a component of the National EMS Education and Practice Blueprint.

**Intermediate Term**

Include prevention as part of EMS education core contents.

**Long Term**

Include prevention-related material as part of EMS provider pre-credential examinations.

*During Geoff Clarkson’s paramedic education, he learned about the principles of prevention, and he developed an appreciation for the role of prevention activities in the EMS system. Now he readily accepts prevention-oriented objectives as part of his mission as a paramedic. In fact, he is active in planning and evaluating the prevention initiatives, both for the community and the workforce.*

**Potential Participants**

**Lead:** NCSEMSTC, NHTSA, NREMT.

**Contributing:** AAA, AAMS, AAOS, AAP, ACEP, ACS, ENA, IAFC, IAFF, JRC, NAEMSE, NAEMSP, NASEMSD, SAEM.

**EMS Agenda for the Future:**  
Public Access • Communication Systems

**NATIONAL ACTION:**  
**Improve the abilities of personal communication devices to facilitate access to emergency help.**

**OBJECTIVES:**

**Short Term**

Implement methods to provide emergency calls priority within networks for wireless telephones (e.g., cellular, digital personal communication systems).

**Intermediate Term**

Incorporate automatic location identification technology in wireless communications systems to route emergency calls made from them directly to the appropriate public safety answering point, and facilitate a prompt response to the correct location.

**Long Term**

Update public safety answering point technology to automatically receive geographic location data from wireless communications devices.

*A motorist traveling on a highway witnesses a motor vehicle crash. He dials 9-1-1 on his cellular telephone. Although the cell he is in is extremely busy (a busy signal would normally be heard) the system recognizes his call as an emergency. The call is given priority over other cellular traffic, and is routed to the appropriate answering point. There, information from the telephone's location identification system is automatically displayed and allows the call-taker to immediately determine the caller's location, even though the caller himself is unsure.*

**Potential Participants**

**Lead:** APCO, CTIA, FCC, NENA, NHTSA.

**Contributing:** Cellular telephone manufacturers and service companies, NAEMD, public safety answering points.

## EMS Agenda for the Future: Communication Systems

**NATIONAL ACTION:**  
Enhance mobile telephone services as resources for EMS system communication.

### OBJECTIVES:

#### Short Term

Evaluate the ability of wireless telephone (e.g., cellular, digital personal communication systems) companies to prioritize calls made from EMS system wireless telephones.

#### Intermediate Term

Develop plans for prioritizing emergency calls made from EMS system wireless telephones.

#### Long Term

Provide area-wide priority for emergency calls made from EMS system wireless telephones.

*North County EMS is caring for a cardiac patient in need of emergency interventions. His EKG must be transmitted to the medical control facility by cellular telephone. Although the cellular system is busy, it recognizes the EMS call and provides it priority routing. The ability to review the EKG prior to the patient's arrival enables the medical control facility to order optimal care, and prepare critical therapy. The time saved by this preparation is crucial to the patient's excellent outcome.*

### Potential Participants

**Lead:** APCO, CTIA.

**Contributing:** Cellular telephone manufacturers and service companies, FCC, NAEMD, NENA, NHTSA, public safety answering points, state EMS lead agencies, state telecommunications officials.

**EMS Agenda for the Future:**  
Communication Systems • Education Systems • Public Access

**NATIONAL AND LOCAL ACTION:**  
**Ensure that EMS communications personnel are optimally qualified.**

**OBJECTIVES:**

**Short Term**

Perform task analyses to determine the desirable attributes for EMS communications personnel.

**Intermediate Term**

Establish uniform education and credential requirements for EMS communications personnel.

**Long Term**

Require emergency communications center personnel performing EMS-related tasks to acquire appropriate credentials.

*City EMS officials, through quality improvement procedures, identify several concerns regarding their communications center. As part of their approach to improvement, they analyze the tasks required of their personnel. They subsequently develop a process for issuing credentials. They also ensure that all EMS communications personnel obtain the necessary credentials by that process. In part due to City's success, the state adopts similar requirements for all of its EMS communication centers.*

**Potential Participants**

**Lead:** APCO, NAEMD.

**Contributing:** EMS communications centers, EMS medical directors, emergency medical dispatchers, EMS provider agencies, IAFC, IAFF, NAEMSP, NASEMSD, NHTSA, state EMS lead agencies.

**EMS Agenda for the Future:**  
 Communication Systems • Public Access

**NATIONAL ACTION:**  
**Eliminate barriers to accessing EMS.**

**OBJECTIVES:**

**Short Term**

Identify the potential barriers to accessing EMS.

**Intermediate Term**

Establish a universal telephone symbol, that can also be identified by people with impaired vision, and evaluate other technologies to facilitate access to EMS.

**Long Term**

Improve access to EMS for all community members, including children, the elderly and people with special needs.

*Ruth Thomas suffers from a condition that impairs her vision. She has difficulty doing things like dialing a telephone number. When her husband suffers a stroke, and she must call for help, she pushes the "emergency help" icon on her telephone. She is able to describe the situation to the call-taker so that an appropriate EMS response is initiated, and effective care for Mr. Thomas is facilitated.*

**Potential Participants**

**Lead:** APCO, EMS communications centers, EMS provider agencies, FCC, NENA.

**Contributing:** AAHP, community organizations, EMS medical directors, HIAA, health care networks, HRSA/MCHB, medical societies, NAEMD, NAEMSP, public utility commissions, telecommunications companies.

**NATIONAL AND LOCAL ACTION:**  
**Provide an EMS response that is appropriate for the need.**

**OBJECTIVES:**

**Short Term**

Evaluate the ability of public safety answering points to reliably determine the appropriate level of response needed for EMS calls.

**Intermediate Term**

Create communication networks that link EMS and other health resources to facilitate the appropriate transfer of calls for EMS to those resources in specific circumstances.

**Long Term**

Conduct epidemiological and outcomes research to guide efforts to match health resource allocations to EMS callers' needs.

*Apple County EMS and Optimal Managed Care Plan establish a communications link. This link facilitates appropriate referral of some of the calls for EMS to the plan's communication center and vice versa. Over the course of several months, a number of inappropriate EMS responses are avoided. Other calls are more expediently answered because of the plan's link with the EMS system. All referred calls are scrutinized as part of an extensive continuous evaluation process.*

**Potential Participants**

**Lead:** Emergency communication centers, EMS researchers.

**Contributing:** AAA, ACEP, APCO, EMS dispatchers, EMS medical directors, EMS provider agencies, health care insurers, health care networks, NAEMD, NAEMSE, NAEMSP, poison control centers, public health agencies, social service agencies.

**NATIONAL AND LOCAL ACTION:**  
**Establish communication links for exchanging appropriate patient information.**

**OBJECTIVES:**

**Short Term**

Convene a multidisciplinary conference to explore confidentiality issues, and develop guidelines for sharing information between EMS and other health care providers.

**Intermediate Term**

Establish communication links with EMS communications centers and community health care providers and health data sources, in order to facilitate appropriate caller transfers and information exchange, and decrease health care networks' motivation to create their own 9-1-1 alternatives.

**Long Term**

Establish communication links between EMS and health care networks, and develop protocols for sharing information about patients with special needs, facilitating appropriate patient follow-up.

*EMS providers are called to the house of Dan Saylor by a neighbor who found him unconscious. The EMS communication center obtains critical portions of Mr. Saylor's medical history from its health network database. While en route, the EMS providers are advised by their communications center that Mr. Saylor is routinely treated at University Medical Center for a rare endocrine disorder, and that he should be transported there. At the scene the EMS providers find Mr. Saylor unable to speak, but they now have sufficient background information to make informed decisions for him.*

**Potential Participants**

**Lead:** EMS communications centers, EMS provider agencies, health care networks.

**Contributing:**

AAHP, AHA, APCO, EMS medical directors, hospitals, NAC, NAEMD, NLC, public health services, social service agencies, state EMS lead agencies.

**EMS Agenda for the Future:**  
Clinical Care • Education Systems

**NATIONAL AND STATE ACTION:**  
**Commit to a definition of essential EMS capacity.**

**OBJECTIVES:**

**Short Term**

Develop a blueprint to describe the functional attributes of community EMS systems with various levels of sophistication and clinical capabilities.

**Intermediate Term**

Develop consensus regarding the attributes of essential community EMS capacity.

**Long Term**

Ensure that all communities have essential EMS capacity available to them.

*The National Highway Traffic Safety Administration (NHTSA) and the National Association of State EMS Directors (NASEMSD) collaborate to convene a series of conferences to develop EMS capacity definitions and guidelines. The guidelines are then used as benchmarks. State EMS lead agencies use the guidelines to help develop local EMS systems, and to determine appropriate resource allocation.*

**Potential Participants**

**Lead:** NAEMSP, NASEMSD, NHTSA, state EMS lead agencies.

**Contributing:** AAA, AAOS, AAP, ACEP, ACS, ASTM, ENA, FEMA, HRSA, IAFC, IAFF, NAC, NAEMSE, NAEMT, NAFR, NCSEMSTC, NLC, NREMT, NRHA, SAEM, Wilderness Medicine Society.

**EMS Agenda for the Future:**  
Clinical Care • EMS Research • Evaluation

**NATIONAL AND LOCAL ACTION:**  
**Evaluate EMS care and technology.**

**OBJECTIVES:**

**Short Term**

Evaluate new roles, techniques, and technology before their widespread deployment by EMS.

**Intermediate Term**

Evaluate the appropriateness and effectiveness of new or expanded EMS care before it is implemented on a routine basis.

**Long Term**

Continue to evaluate the costs and effects of new or expanded EMS care and technology.

*Birmingham EMS is contemplating strategic placement of automatic external defibrillators (AED) throughout its community. Before doing so, they carefully evaluate the likely influence the AEDs will have on survival. They consider the likelihood of the availability of a person able to operate the equipment and the current system's performance, among other demographic factors. This evaluation enables them to make the appropriate decisions regarding the types, numbers and locations of the AEDs to be deployed.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies.

**Contributing:** AAA, ACEP, AHA, EMS researchers, ENA, FDA, IAFC, medical device manufacturers, NAEMSE, NAEMSP, NAEMT, NASEMSD, NCSEMSTC, research funding organizations, SAEM.

**EMS Agenda for the Future:  
Evaluation**

**LOCAL ACTION:**

**Use evaluation of multiple conditions and outcome categories to improve EMS quality.**

**OBJECTIVES:**

**Short Term**

Implement continuous evaluation processes as part of EMS quality improvement efforts.

**Intermediate Term**

Evaluate EMS using multiple conditions and outcome categories, including death, disease, disability, discomfort, dissatisfaction and destitution.

**Long Term**

Update evaluation processes as new models are developed, and use evaluation results to improve EMS quality.

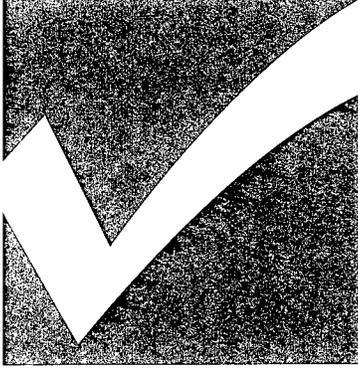
*Northport EMS develops an evaluation plan that is updated yearly. The plan uses models provided by the state EMS lead agency, and input from the community and area health care providers. The results of this continuous evaluation are used to determine EMS value to the community, and to make system improvements.*

**Potential Participants**

**Lead:** EMS medical directors, EMS provider agencies

**Contributing:** AAA, AAMS, ACEP, IAFC, IAFF, NAEMSP, NASEMSD, NAEMSQP, state EMS lead agencies.

# Appendix A:





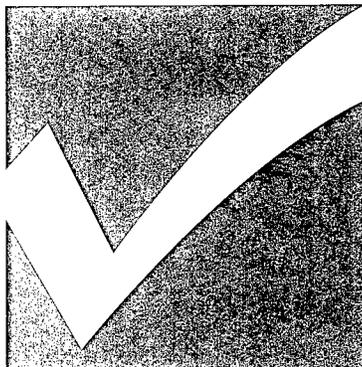
AAA	American Ambulance Association
AACEM	Association of Academic Chairs of Emergency Medicine
AAFP	American Academy of Family Practice
AAHP	American Association of Health Plans
AAMC	American Association of Medical Colleges
AAMS	Association of Air Medical Services
AAOS	American Academy of Orthopaedic Surgeons
AAP	American Academy of Pediatrics
AAPPO	American Association of Preferred Provider Organizations
AARC	American Association of Respiratory Care
AARP	American Association of Retired Persons
AAUAP	American Association of University Affiliated Programs
ABA	American Bar Association
ABEM	American Board of Emergency Medicine
ABMS	American Board of Medical Specialties
ACEP	American College of Emergency Physicians
ACS(COT)	American College of Surgeons (Committee on Trauma)
AHA	American Heart Association
AhA	American Hospital Association
AHCL	American Health Care Lawyers
AHCPR	Agency for Health Care Policy and Research
AMA	American Medical Association
AMIA	American Medical Informatics Association
AMPA	Air Medical Physician Association
ANA	American Nurses Association
APA	American Psychological Association
APCO	Association of Public-Safety Communications Officials - Int'l
APHA	American Public Health Association
ARC	American Red Cross
ASPA	American Society of Public Administrators
ASPH	Association of Schools of Public Health
ASTHO	Association of State and Territorial Health Officers
ASTM	American Society for Testing and Materials
ATPM	Association of Teachers of Preventive Medicine
ATS	American Trauma Society
AUPHA	Association of University Programs Health Administration
CAAHEP	Commission of Accreditation of Allied Health Education Programs
CDC	Centers for Disease Control and Prevention

CFSI	Congressional Fire Services Institute
CORD	Council of Residency Directors (Emergency Medicine)
CTIA	Cellular Telecommunications Industry Association
DHHS	Department of Health and Human Services
EMRA	Emergency Medicine Residents Association
EMS-C	Emergency Medical Services for Children
EMS-G	Emergency Medical Services for Geriatrics
ENA	Emergency Nurses Association
ENCare	Emergency Nurses Care
FCC	Federal Communications Commission
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FICEMS	Federal Interagency Commission for Emergency Medical Services
HCFA	Health Care Finance Administration
HIAA	Health Insurance Association of America
HRSA	Health Resources and Services Administration
IAFC	International Association of Fire Chiefs
IAFF	International Association of Fire Fighters
ICISF	International Critical Incident Stress Foundation
JRC	Joint Review Committee for Education Programs EMT-P
MCHB	Maternal and Child Health Bureau
NAC	National Association of Counties
NABN	National Association of Boards of Nursing
NACCHO	National Association of County & City Health Officials
NAEMD	National Association of Emergency Medical Dispatch
NAEMSE	National Association of EMS Educators
NAEMSP	National Association of EMS Physicians
NAEMSQP	National Association of EMS Quality Professionals
NAEMT	National Association of Emergency Medical Technicians
NAFR	National Association of First Responders
NAHP	National Association of Health Plans
NASEMSD	National Association of State EMS Directors
NCQA	National Committee for Quality Assurance
NCSEMSTC	National Council of State EMS Training Coordinators
NCSL	National Conference of State Legislatures
NEMA	National Emergency Management Association
NEMSA	National EMS Alliance
NENA	National Emergency Number Association



NIH	National Institutes of Health
NIOSH	National Institute for Occupational Safety and Health
NFA	National Fire Academy
NFNA	National Flight Nurses Association
NFPA	National Flight Paramedics Association
NHAAP	National Heart Attack Alert Program
NHTSA	National Highway Traffic Safety Administration
NLC	National League of Cities
NREMT	National Registry of Emergency Medical Technicians
NRHA	National Rural Health Association
NSC	National Safety Council
OSHA	Occupational Safety and Health Administration
SAEM	Society for Academic Emergency Medicine
STIPDA	State and Territorial Injury Prevention Directors Association
USFA	United States Fire Administration

# Appendix B:



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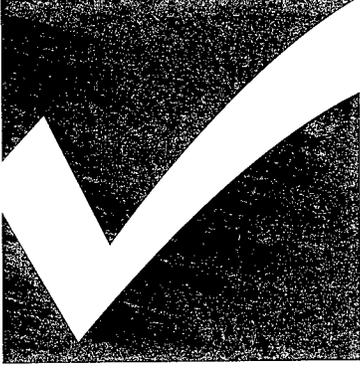
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# Appendix C:



## Integration of Health Services

- Incorporate EMS within health care networks' structures to deliver quality care.
- Be cognizant of the special needs of the entire population.
- Incorporate health systems within EMS that address the special needs of all segments of the population.
- Expand the role of EMS in public health.
- Involve EMS in community health monitoring activities.
- Integrate EMS with other health care providers and provider networks.

## EMS Research

- Allocate federal and state funds for a major EMS systems research thrust.
- Develop information systems that provide linkage between various public safety services and other health care providers.
- Develop academic institutional commitments to EMS-related research.
- Interpret informed consent rules to allow for clinical and environmental circumstances inherent in conducting credible EMS research.
- Develop involvement and/or support of EMS research by all those responsible for EMS structure, processes, and/or outcomes.
- Designate EMS as a physician subspecialty, and as a subspecialty for other health professions.

- Include research-related objectives in the education processes of EMS providers and managers.
- Enhance the quality of published EMS research.
- Develop collaborative relationships between EMS systems, medical schools, other academic institutions, and private foundations.

## Legislation and Regulation

- Authorize and sufficiently fund a lead federal EMS agency.
- Enhance the abilities of state EMS lead agencies to provide technical assistance.
- Pass and periodically review EMS enabling legislation in all states that supports innovation and integration, and establishes and sufficiently funds an EMS lead agency.
- Establish and fund the position of State EMS Medical Director in each state.
- Authorize state and local EMS lead agencies to act on the public's behalf in cases of threats to the availability of quality EMS to the entire population.
- Implement laws that provide protection from liability for EMS field and medical direction personnel when dealing with unusual situations.

## System Finance

- Collaborate with other health providers and insurers to enhance patient care efficiency.
- Develop proactive financial relationships between EMS, other health care providers, and health care insurers/provider organizations.
- Compensate EMS on the basis of a preparedness-based model, reducing volume-related incentives and realizing the cost of an emergency safety net.
- Provide immediate access to EMS for emergency medical conditions.
- Address EMS relevant issues within governmental health care finance policy.
- Commit local, state, and federal attention and funds to continued EMS infrastructure development.

## Human Resources

- Ensure that alterations in expectations of EMS personnel to provided health care services are preceded by adequate preparation.
- Adopt the principles of the National EMS Education and Practice Blueprint.
- Develop a system for reciprocity of EMS provider credentials.
- Develop collaborative relationships between EMS systems and academic institutions.
- Conduct EMS occupational health research.
- Provide a system for critical incident stress management.

## Medical Direction

- Formalize relationships between all EMS systems and medical directors.
- Appropriate sufficient resources for EMS medical direction.
- Require appropriate credentials for all those who provide on-line medical direction.
- Develop EMS as a physician and nurse subspecialty certification.
- Appoint state EMS medical directors.

## Education Systems

- Ensure adequacy of EMS education programs.
- Update education core content objectives frequently enough so that they reflect patient EMS health care needs.
- Incorporate research, quality improvement, and management learning objectives in higher level EMS education.
- Seek accreditation for EMS education programs.
- Commission the development of national core contents to replace EMS program curricula.
- Conduct EMS education with medical direction.
- Establish innovative and collaborative relationships between EMS education programs and academic institutions.
- Recognize EMS education as an academic achievement.
- Develop bridging and transition programs.
- Include EMS-related objectives in all health professions' education.

## Public Education

- Acknowledge public education as a critical activity for EMS.
- Collaborate with other community resources and agencies to determine public education needs.
- Engage in continuous public education programs.
- Educate the public as consumers.
- Explore the new techniques and technologies for implementing public education.
- Evaluate public education initiatives.

## Prevention

- Collaborate with community agencies and health care providers with expertise and interest in illness and injury prevention.
- Support the Safe Communities concept.
- Advocate for legislation that potentially results in injury and illness prevention.
- Develop and maintain a prevention-oriented atmosphere within EMS systems.
- Include the principles of prevention and its role in improving community health as part of EMS education core contents.
- Improve the ability of EMS to document injury and illness circumstances.

## Public Access

- Provide emergency telephone service for those who cannot otherwise afford routine telephone services.
- Ensure that all calls to a PSAP, regardless of their origins, are automatically accompanied by unique location-identifying information.
- Develop uniform cellular 9-1-1 service that reliably routes calls to the appropriate PSAP.
- Evaluate and employ technologies that attenuate potential barriers to EMS access.
- Enhance the ability of EMS systems to triage calls, and provide resource allocation that is tailored to patients' needs.
- Implement 9-1-1 nationwide.

## Communications Systems

- Assess the effectiveness of various personnel and resource attributes for EMS dispatching.
- Receive all calls for EMS using personnel with the requisite combination of education, experience and resources to optimally query the caller, make determination of the most appropriate resources to be mobilized, and implement an effective course of action.
- Promulgate and update stands for EMS dispatching.
- Develop cooperative ventures between communications centers and health providers to integrate communications processes and

enable rapid patient-related information exchange.

- Determine the benefits of real-time patient data transfer.
- Appropriate federal, state, and regional funds to further develop and update geographically integrated and functionally based EMS communications networks.
- Facilitate exploration of potential uses of advancing communications technology by EMS.
- Collaborate with private interests to effect shared purchasing of communication technology.

### **Clinical Care**

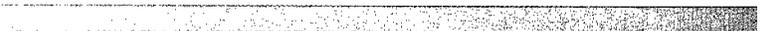
- Eliminate patient transport as a criterion for compensating EMS systems.
- Establish proactive relationships between EMS and other health care providers.
- Commit to a common definition of what constitutes baseline community EMS care.
- Subject EMS clinical care to ongoing evaluation to determine its impact on patient outcomes.
- Employ new care techniques and technology only after shown to be effective.
- Conduct task analyses to determine appropriate staff configurations during secondary patient transfers.

### **Information Systems**

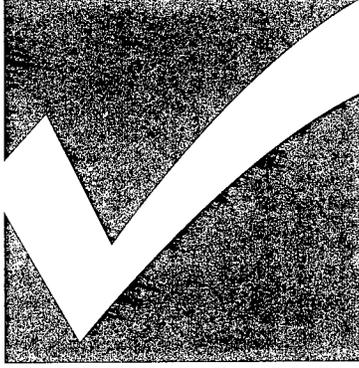
- Develop information systems that are able to describe an entire EMS event.
- Adopt uniform data elements and definition and incorporate them into information systems.
- Develop mechanisms to generate and transmit data that are valid, reliable, and accurate.
- Develop integrated information systems with other health care providers, public safety agencies, and community resources.
- Provide feedback to those who generate data.

### **Evaluation**

- Develop valid models for EMS evaluations.
- Evaluate EMS effects for multiple medical conditions.
- Determine EMS effects for multiple outcome categories.
- Determine EMS cost-effectiveness.
- Incorporate consumer input in evaluation processes.



# Appendix D:



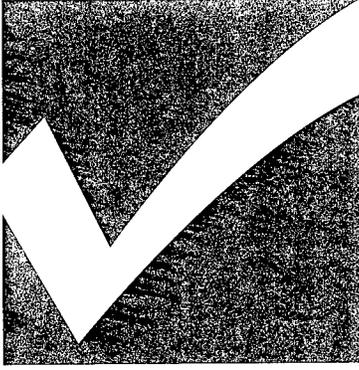
The National Highway Traffic Safety Administration (NHTSA) and the Maternal and Child Health Bureau (MCHB), Health Resources and Services Administration (HRSA) commissioned the development of the EMS Agenda for the Future: Implementation Guide. A multidisciplinary steering committee (Appendix E) prepared the Implementation Guide. Committee members studied the goals proposed in the EMS Agenda for the Future, and developed objectives that will lead to achieving those goals. During the process of creating the Implementation Guide, the committee sought input from individuals with specific expertise and a broad spectrum of EMS-interested organizations and individuals.

The steering committee initially met on September 16 and 17, 1996. Subsequent meetings occurred in November 1996 and February and May 1997. Several individuals (Appendix F) attended one or more steering committee meetings to provide expertise and participate in the process of formulating meaningful objectives. Following its November meeting, the steering committee distributed a draft document to 300 organizations and individuals interested in EMS, including those who attended the December 1995 EMS Agenda for the Future Blue Ribbon Conference. Further duplication and distribution of the draft by those recipients was encouraged. Eighty-seven people furnished comments to the steering committee. The steering committee reviewed each comment during its February meeting, and revised the document accordingly. A second draft document was sent to the original list of recipients and any one else

who had provided feedback. The steering committee received 24 additional comments, which were reviewed during the May meeting. The draft was revised accordingly, and final preparation of the Implementation Guide occurred during the ensuing months.

The steering committee recognized that the number of objectives in the Implementation Guide is initially overwhelming. In an effort to provide additional direction, ten priority objectives were identified. Committee members developed criteria for determining the priority objectives, and used a Delphi technique to successively narrow their choices until they reached a consensus. The steering committee delivered the EMS Agenda for the Future: Implementation Guide to NHTSA in February 1998.

# Appendix E:



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Mark Stutelberg  
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Technical Representatives:

Susan D. McHenry, MS  
Jeffrey P. Michael, Ed.D  
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National Highway Traffic Safety  
Administration  
Washington, D.C.



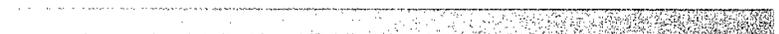
**Administrative Staff:**

Kathleen Stage-Kern  
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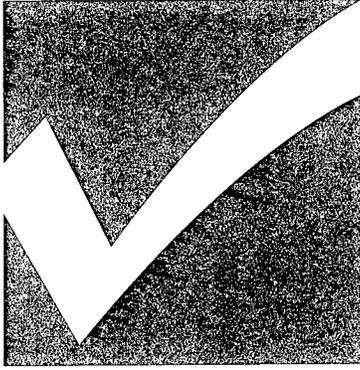
Michelle Cheney  
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Appendix E: Steering Committee



# Appendix F:



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Mary McDonald Hand, MSPH, RN  
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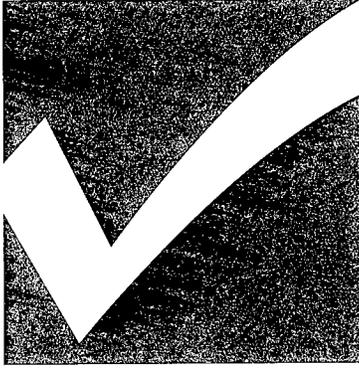
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Elinor Walker, PhD  
Health Scientists Administrator  
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# Appendix G:



**Academic:** Based upon formal education; scholarly; conventional.

**Academic Institution:** A body or establishment instituted for an educational purpose and providing college credit or awarding degrees.

**Accreditation:** The granting of approval by an official review board after specific requirements have been met.

**Advanced Directive:** Written instructions by an individual providing directions to medical personnel in the event of critical illness with regard to the extent of resuscitative measures to be pursued.

**Air Medical Transport:** Emergency transport via rotor or fixed wing aircraft; may be from the scene (primary transport) or interfacility (secondary transport).

**Automatic Vehicle Location:** Technology or method used to track or determine a vehicle's location or position and report the position, usually by radio, to a communications or command center. Methods include geo-positioning satellite (GPS), electronic sensed sign-posts, loran navigation, and inertial guidance computer mapped systems.

**Bridging Program:** An abbreviated educational program resulting in credentials that build on prior credentials in a related field; EMT certification for registered nurses.

**Bystander:** A citizen responder, not part of the EMS response team, on the scene of an illness or injury incident irrespective of training.

**Chain of Survival:** The four components of EMS response to out-of-facility cardiac arrest that are thought to effect the most optimal patient outcome. The four components include early recognition and EMS access, early CPR, rapid defibrillation, and advanced life support.

**Command and Control Center: (Central Communications Center)** - A place where responsibility rests for establishing communications channels and identifying the necessary equipment and facilities to permit immediate management and control of an EMS patient. This operation provides access and availability to public safety resources essential for efficient management of the immediate EMS problem.

**Communication:** The act of communicating. The exchange of thoughts, messages or information, as by speech, signals, writing or behavior. The art and technique of using words effectively and with grace in imparting one's ideas. Something communicated; a message.



**Communications:** A means of communicating, especially: a system, such as mail, telephone, television or radio, for sending and receiving messages. A network of routes or systems for sending messages. The technology employed in transmitting messages.

**Community Health Resources:** Capability that may be offered within a neighborhood or community to aid in the detection, surveillance, and support of community health. This may include a municipal organization such as the fire service or EMS, department of public health, social service organization, volunteer organization, and others.

**Component:** An individual element, aspect, subgroup, or activity within a system. Complex systems (such as EMS) are composed of many components.

**Computerized Record:** Data maintained on computer for easy access, manipulation, refinement and review.

**Core Content:** The central elements of a professional field of study and relations involved; does not specify the course of study.

**Cost-effective:** Providing the maximal improved health care outcome improvement at the least cost.

**Cost-effective Analysis:** Analysis that determines the costs and effectiveness of an intervention or system. This includes comparing similar alternative activities to determine the relative degree to which they obtain the desired objective or outcome. The preferred alternative is the one that requires the least cost to produce a given level of effectiveness or provides the greatest effectiveness for a given level of cost.

**Credentialing Agency:** Organization which certifies an institution's or individual's authority or claim to confidence for a course of study or completion of objectives.

**Curriculum:** A particular course of study, often in a special field. For EMS education it has traditionally included detailed lesson plans.

**Customary Charge:** The amount that an individual company charges in the majority of claims for a specific item or service.

**Data:** Crude, isolated, nonanalyzed measures that reflect the status or degree of a measured attribute of a component or system.

**Educational Affiliation:** An association with a learning institution(s) (academic), the extent of which can vary greatly from recognition to integration.

**Educational Objective:** The outcome/goal of the teaching/training conducted; the desired knowledge to be imparted.

**Effective:** Capable of producing or designed to produce a particular desired effect in "real world" circumstances.

**Efficacy:** The effect of an intervention or series of interventions on patient outcome in a setting that is most likely to be positive (e.g., the laboratory or other "perfect" settings).

**Efficiency:** The effect or results achieved in relation to the effort expended (resources, money, time). It is the extent to which the resources used to provide an effective intervention or service are minimized. Thus, if two services are provided that are equally effective, but one requires the expense of fewer resources, that service is said to be more efficient.

**Emergency Medical Dispatch:** The function of providing prompt and accurate processing of calls, for emergency medical assistance by trained individuals, using a medically approved dispatch protocol system and functioning under medical supervision.

**Emergency Medical Dispatcher (EMD):** A trained public safety telecommunicator with additional training and specific emergency medical knowledge essential for the efficient management of emergency medical communications.

**Emergency Medical Technician (EMT):** A member of the emergency medical services team who provides out-of-facility emergency care; includes certifications of EMT-Basic, EMT-Intermediate, and EMT-Paramedic progressively advancing levels of care.

**Emergency Physician:** A physician specialized in the emergency care of acutely ill or injured patients.

**EMS Personnel:** Paid or volunteer individuals who are qualified, by satisfying formalized existing requirements, to provide some aspect of care or service within the EMS system.

**EMS Physician:** A physician with specialized knowledge and skills in the area of emergency medical service, including clinical care and systems management; a physician who specializes in emergency medical services system management, in which the provision of direct patient care is only one component.



**EMS Protocol:** Written medical instructions or algorithms authorized by an EMS medical director to be used by personnel in the field without the necessity of on-line or real-time consultation with the physician or nurse providing medical direction.

**EMS System:** Any specific arrangement of emergency medical personnel, equipment, and supplies designed to function in a coordinated fashion. May be local, regional, state, or national.

**Enabling EMS Legislation:** Law that grants authority to specific entities to undertake activity related to the provision or establishment of an EMS system. Generally, enabling legislation represents a legislature's delegation of authority to a state agency to regulate some or all aspects of an EMS delivery system. This may include technical support, funding, or regulation.

**Episodic Care:** An acute, relatively brief, intervention representing a segment of continuous health care experience.

**Expanded Role/Expanded Scope:** Increased dimensions of the services, activities, or care provided by EMS.

**Federal Communications Commission (FCC):** A board of five commissioners appointed by the president under the Communications Act of 1934 to formulate rules and regulations and to authorize use of radio communications. The FCC regulates all communications in the United States by radio or wireline, including television, telephone, radio, facsimile, and cable systems, and maintains communications in accordance with applicable treaties and agreements to which the United States is a party.

**First Responder:** The initial level of care within an EMS system as defined by the EMS Education and Practice Blueprint, as opposed to a bystander.

**Health Care Delivery System:** A specific arrangement for providing preventive, remedial, and therapeutic services; may be local, regional, or national.

**Health Care Facility:** A site at which dedicated space is available for the delivery of health care. This may include physicians' offices and urgent care centers, as well as hospitals and other medical facilities.

**Health Care Provider Network:** Conglomerate of both community and hospital resources participating in a common contractual agreement to provide all health care needs to individual members of society.



**Information:** A combination of data, usually from multiple sources, used to derive meaningful conclusions about a system (health resources, costs, utilization of health services, outcomes and populations, etc.). Information cannot be developed without crude data. However, data must be transformed into information to allow decision making that improves a given system.

**Informed Consent:** Voluntary consent by a given subject, or by a person responsible for a subject, for participation in an investigation, treatment program, medical procedure, etc., after being informed of the purpose, methods, procedures, benefits, and potential risks. Awareness of risk is necessary for any subject to make an informed choice.

**Infrastructure:** The basic facilities, equipment, services, and installations needed for functioning; the substructure, components, or underlying foundation of a community or system.

**Injury Control:** A systematic approach to preventing and mitigating the effects of all injuries.

**Injury Prevention:** Activities to keep injuries from ever occurring (primary), or reducing further injury once it has occurred through acute care (secondary) and rehabilitation (tertiary).

**Legislation:** Lawmaking; the procedure of legislating; law or laws made by such a procedure.

**Licensing:** The act of granting an entity permission to do something which the entity could not legally do absent such permission. Licensing is generally viewed by legislative bodies as a regulatory effort to protect the public from potential harm. In the health care delivery system, an individual who is licensed tends to enjoy a certain amount of autonomy in delivering health care services. Conversely, the licensed individual must satisfy certain initial proficiency criteria and may be required to satisfy ongoing requirements which assure certain minimum levels of expertise. A license is generally considered a privilege and not a right.

**Linkage:** Connected; combining crude data from various sources to provide information that can be analyzed. This analyzed information allows meaningful inferences to be made about various aspects of a system. (An example would be linking EMS dispatch records, out-of-hospital patient care records, and hospital discharge data.)

**Medicaid:** A federal program, administered by the states, designed to provide health care coverage to the indigent. Established by Title XIX of the Social Security Act.



**Medical Direction:** The provision of management, supervision, and guidance for all aspects of EMS to assure its quality of care.

**Medical Director:** The physician who has the ultimate responsibility and authority to provide management, supervision, and guidance for all aspects of EMS in an effort to assure its quality of care (may be on a local, regional, state, and national level).

**Medical Facility:** A stationary structure with the purpose of providing health care services (e.g., hospital, emergency department, physician office, and others).

**Medical Oversight:** The ultimate responsibility and authority for the medical actions of an EMS system.

**Medicare:** A federal program designed to provide health care coverage to individuals 65 and over. Established on July 30, 1965, by Title XVIII of the Social Security Act.

**Network:** A formal system linking multiple sites or units.

**Noninvasive Monitoring:** Measurement/scanning accomplished without penetrating the viscera or superficial tissues.

**On-line Medical Direction:** The moment-to-moment contemporaneous medical supervision/guidance of EMS personnel in the field, provided by a physician or other specialty qualified health professional (e.g., mobile intensive care nurse), via radio transmission, telephone, or on the scene.

**Out-of-facility EMS:** Remote from a medical facility. In the case of EMS it pertains to those components of the emergency health delivery system that occur outside of the traditional medical settings (e.g., prehospital care, transportation, and others).

**Outcome:** The short, intermediate, or long-term consequence or visible result of treatment, particularly as it pertains to a patient's return to societal function.

**Perceived Emergent Need:** A medical condition for which a prudent layperson possessing an average knowledge of health care believes there is a necessity of rapid medical treatment.

**Personnel Configuration:** Specific way of staffing or organizing members of the work force.

**Pilot Project:** A systematic planned undertaking which serves as an experimental model for others to follow.

**Preparedness Based Payment:** Reimbursing EMS agencies for the cost of being prepared to respond to an emergency.

**Prevailing Charge:** The amount that falls within the range of charges most frequently billed in the locality for a particular service.

**Protocol:** The plan for a course of medical treatment; the current standard of medical practice.

**Provider:** An individual within an EMS system with a specific credential(s) that defines a specific level of competency (i.e., first responder, EMT-Basic, EMT-Intermediate, EMT-Paramedic, or other).

**Public Education:** Activities aimed at educating the general public concerning EMS and health related issues.

**Public Health:** The science of providing protection and promotion of community health through organized community effort.

**Public Safety Answering Point (PSAP):** A facility equipped and staffed to receive and control 9-1-1 emergency telephone calls.

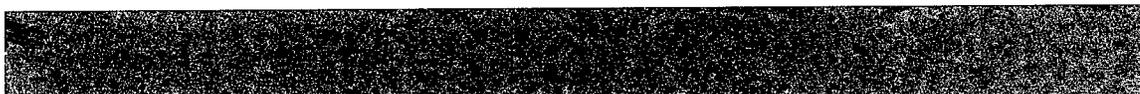
**Public Safety Telecommunicator:** An individual trained to communicate remotely with persons seeking emergency assistance, and with agencies and individuals providing such assistance.

**Real-time Patient Data:** Current patient information provided by a field technician at the patient location to a physician or health care facility at a remote site, potentially for the purpose of assisting the physician to make a better informed decision on patient treatment and/or transport.

**Reciprocity:** The ability for a license or certificate to be mutually interchangeable between jurisdictions.

**Regional EMS System:** A systematic approach to the delivery of Emergency Medical Services defined by distinct geographic boundaries that may or may not cross state boundaries.

**Regulation:** Either a rule or a statute which prescribes the management, governance, or operating parameters for a given group; tends to be a function of administrative agencies to which a legislative body has delegated authority to promulgate rules/regulations to "regulate" a given industry or profession. Most regulations are intended to protect the public health, safety and welfare.



**Reimbursement:** To compensate; to repay.

**Research:** The study of questions and hypotheses using the scientific method.

**Safe Communities:** An integrated injury control system-incorporating prevention, acute care, and rehabilitation-to understand and solve injury problems, and identify new partners to help develop and implement solutions.

**Scope of Practice:** Defined parameters of various duties or services which may be provided by an individual with specific credentials. Whether regulated by a rule, statute, or court decision, it tends to represent the limits of what services an individual may perform.

**Stabilizing Care:** The medical attention needed to achieve physical equilibrium in a person.

**State-of-the-art:** The highest use of technology or technique known at the time.

**Statute:** An act of legislative body which has been adopted pursuant to constitutional authority, by certain means and in such form that it becomes a law governing conduct or actions.

**Subscription Program:** A prepayment program; a prepayment made to secure future events; a prepayment made to secure a reduced ambulance bill either through assignment or discount. Must be actuarially sound.

**System Preparedness:** Efforts necessary to ensure the readiness to provide a specific standard of care.

**Systems Analysis:** The research discipline that evaluated efficacy, effectiveness, and efficiency based upon all relevant components that contribute to a system. This entails the examination of various elements of a system to ascertain whether the proposed solution to a problem will fit into the system and, in turn, effect an overall improvement in the system.

**Telephone Aid:** Ad-libbed telephone instructions provided by either trained or untrained dispatchers, differing from “dispatch life support” pre-arrival instructions in that the instructions provided to the caller are based on the dispatcher’s knowledge or previous training in a procedure or treatment without following a scripted pre-arrival instruction protocol. They are not medically pre-approved since they do not exist in written form.



Telephone Treatment Protocol: Specific treatment strategy designed in a conversational script format that direct the EMD step-by-step in giving critical pre-arrival instructions such as CPR, Heimlich maneuver, mouth-to-mouth breathing, and childbirth instruction.

Third Party Payor: Insurance; an entity which is responsible to pay for services even though it is not directly involved in the transaction.