



Final Advisory on Community Paramedicine

Adopted on December 4, 2014

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Acronyms Used in the Report

NEMSAC (National EMS Advisory Council)

American Association of Highway and Transportation Officials (AASHTO)

Community Paramedicine (CP)

Emergency Department (ED)

Federal Interagency Committee on Emergency Medical Services (FICEMS)

Health Level 7 Information Standards (HL7)

HHS Office of Assistant Secretary for Preparedness and Response (ASPR)

Institute for Healthcare Improvement (IHI)

International Statistical Classification of Diseases and Health Related Problems, Version 10 (ICD-10)

International Roundtable on Community Paramedicine (IRCP)

Joint National EMS Leadership Forum (JNEMSLF)

Knowledge, Skills and Abilities (KSAs)

Mobile Integrated Healthcare (MIH)

National Association of EMTs (NAEMT)

National EMS Information System (NEMESIS)

National Highway Traffic Safety Administration (NHTSA)

North Central EMS Institute (NCEMSI)

Patient Protection and Affordable Care Act (PPACA)

The use of the terms “paramedic” and “paramedicine” in this report are inclusive of field EMS personnel licensed by states at the EMT, AEMT and paramedic levels without naming them individually throughout.

Background

The EMS System and the Patient Protection and Affordable Care Act

Since the adoption of the Patient Protection and Affordable Care Act (PPACA) there have been multiple and continuing conversations within the Field EMS community on the intended, unintended, direct and indirect effects of the PPACA on the provision of field EMS care as well as the larger healthcare system. Provisions of the PPACA directly involving the emergency care system and field EMS are limited; reflecting the design of the reforms with focus on improving access to primary and preventive care, managing chronic disease, and lowering costs. While the acute care system is addressed in the PPACA, the focus is largely on reducing costs and improving quality rather than improving access and the provision of services. The PPACA provisions that relate to field EMS, while indirect, are consistent with both the 1996 EMS Agenda for the Future and the 2004 Rural and Frontier EMS Agenda for the future, both of which envision a care system that includes field EMS personnel integrated into the larger healthcare system.

Globally, the PPACA's reforms are designed to improve access to insurance coverage, equity in insurance coverage, improve the quality and safety of care, and reduce the overall rate of inflation growth in national expenditures for healthcare. The Institute for Healthcare Improvement (IHI) has described these concurrent goals as "the triple aim":

- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care

Significant to field EMS, while the healthcare exchanges and new requirements on individual mandate/employer coverage continue to be built out, the combination of uneven Medicaid expansion; problems with the establishment of health exchanges with subsidized coverage; and, the continuing political storm which surrounds the PPACA at the Federal and State political levels have significantly reduced the expected positive impact of the PPACA on improving the safety net. While PPACA continues to target improvements in primary, preventive, and chronic care management, field EMS and the emergency care system continue to provide universal but often unfunded access to healthcare. While hospitals are at least partially reimbursed for care to the uninsured through Hill-Burton and Disproportionate Share Hospital payments by CMS, field EMS agencies have no corresponding offset.

I. Intended / Direct Consequences:

There are a number of provisions in the PPACA directly or indirectly affecting field EMS. The most significant are provisions in:

- *Title I Quality, Affordable Health Care for All Americans, Subtitle D, Part I: establishment of Qualified Health Plans; Section 1302 Essential Health Benefits (ESB).*

Emergency Services are included in the ESB for exchange based health plans. The core element is coverage for emergency department services but with little definition on extent of emergency coverage and no reference to field EMS care.

- *Title II Role of Public Programs, Subtitle I; Section 2707: Medicaid Emergency Psychiatric Demonstration Project.* This section authorizes funding for projects that improve access to psychiatric emergency conditions. There is no specific mention of prehospital services despite the significant impact of this population on field EMS providers.
- *Title III. Improving the Quality and Efficiency of Healthcare, Subtitle B—Improving Medicare for Patients and Providers, Part I Section 3101* which extended the ambulance add on payments for a single year. These add on payments to the 1997 Balanced Budget Reconciliation Act Ambulance Fee Schedule continue to be addressed on a yearly basis with corresponding uncertainty of Medicare Reimbursement for ambulance suppliers and providers. There are no other provisions in the PPACA that directly support emergency response and transport reimbursement.
 - *Part III, Subtitle F, Section 3504: Design and Implementation of Regional Systems for Emergency Care and Section 3505: Trauma Care Centers and Service Availability.* Combined, these two sections authorized \$224M for four consecutive years in additional federal expenditures to support the emergency care system including research. While authorized neither section has been appropriated. The provisions of Section 3504 have recently been reauthorized but not appropriated.
- *Title V Healthcare Workforce; Subtitle B; Innovations in the Healthcare Workforce, Section 5101 National Healthcare Workforce Commission* which includes emergency medical services personnel as included in the definitions of the term “health care workforce” includes all health care providers with direct patient care and support responsibilities...” Recognition of the field EMS workforce as a component of the health professions may not appear consequential but is critical to the integration of field EMS within the healthcare system in regards to support of education and reimbursement for the provision of health care services which extend beyond scene response and transport to an ED.
- *Title V. Healthcare Workforce; Subtitle G, Improving Access Health Care Services; Section 5603 Reauthorization of the Wakefield Emergency Medical Services for Children Program.* This section continues the authorization of funding with a \$25M authorization in FFY 2010 growing to \$30M by FFY2014. As with all other authorizations, funds must subsequently be appropriated by Congress.

II. Unintended/Indirect Consequences

Other than the one-year extension of the ambulance add-on payments and potential system support for regionalized emergency and trauma systems, there are no provisions in the PPACA

that directly affect the EMS system or field EMS reimbursement. Nonetheless, effects of the PPACA may potentially be critical in changing and enhancing the future of the emergency care system *if* the EMS system is committed to the goals of the PPACA with much deeper and wider integration in the larger health care system. Instead of the reactive 9-1-1 focused EMS system of today, field EMS could support the goals of PPACA in proactive population healthcare by emphasizing its role in community level healthcare, prevention, access and the continuum of chronic care management.

The goals of full insurance coverage for all citizens and reductions in cost shifting from the uninsured to the insured have not yet been realized. Hospitals report continuing gaps with underinsured patients and CMS reimbursement is still below the cost of service[1-4]. Potential improvements to coverage and consequently reimbursement are important, but must be seen within the larger goal of the PPACA to reduce unplanned and unscheduled care—“preventable hospital admissions, readmissions, and ED attendance.” Each of these provisions are opportunities for field EMS to have a positive impact on patient outcomes while reducing overall healthcare cost. It will require that EMS agencies and systems learn to negotiate service contracts with hospital systems. These negotiated revenue streams for community level non-emergent care models such as Community Paramedicine will need to be achieved under cost and risk sharing programs with other healthcare providers.

Building from the provisions of Title V, which define field EMS as a recognized health profession, the goals of restraining cost growth and improved patient satisfaction and higher quality care within the PPACA may be the most important future effects on the EMS system. These include:

TITLE II—ROLE OF PUBLIC PROGRAMS Subtitle I—Improving the Quality of Medicaid for Patients and Providers, Section 2705: Medicaid Global Payment System Demonstration Project. Included in this section are new incentives to manage unscheduled and chronic disease management outside of acute care settings. No single provider or entity—primary care physicians, home and hospice care, mental health agencies, support for the elderly, and population managed care firms—will be able to take on this type of project singly within the confines of Medicaid funding. Field EMS agencies have the experience, data and opportunity to partner with other healthcare providers to accomplish these goals.

TITLE III—IMPROVING THE QUALITY AND EFFICIENCY OF HEALTH CARE, Subtitle A—Transforming the Health Care Delivery System

PART 1—LINKING PAYMENT TO QUALITY OUTCOMES UNDER THE MEDICARE PROGRAM; Section 3011 VALUE BASED PURCHASING.

PART 2—NATIONAL STRATEGY TO IMPROVE HEALTH CARE QUALITY; Sections 3011-3015

PART 3—ENCOURAGING DEVELOPMENT OF NEW PATIENT CARE MODELS; Sections 3021-3027

Taken together these PPACA elements lay the foundation for a complete transformation of per-episode reimbursement to bundled payments combined with increased focus on quality metrics, reporting, and transparency. Field EMS providers use data and logistical acumen to provide a platform for ambulance suppliers and providers to integrate with Accountable Care Organizations to better manage high-cost populations. Integration will require field EMS agencies to have robust information technology (IT) and financial management systems incorporating shared risk models.

The Center for Medicare and Medicaid Innovation has received multiple field EMS-based proposals and funded a small number of demonstration projects. The challenge for the projects is they must demonstrate downstream cost reductions, and consequently must cross provider disciplines. Field EMS agencies, to prevail in innovation awards long term, will need to partner with other non-field EMS providers.

Title III. Improving the Quality and Efficiency of Healthcare, Subtitle B—Improving Medicare for Patients and Providers, Part III. Subtitle F Health Care Quality Improvements. Sections 3501-03

These sections focus on system delivery, quality improvement, establishing integrated community health teams, patient centered medical homes and medication management of chronic disease. Implemented properly, field EMS has the unique potential to integrate in these initiatives into a larger “system” of health care. The National EMS Information System, (NEMESIS) is an HL-7 compliant health-care database with records from over twenty million patient encounters. Further, FICEMS and NHTSA have each developed a focus on evidence-based practice and performance improvement. Each of these attributes places field EMS in a perfect position to provide these services.

TITLE IV—PREVENTION OF CHRONIC DISEASE AND IMPROVING PUBLIC HEALTH; Subtitle A—Modernizing Disease Prevention and Public Health Systems; SEC. 4002 PREVENTION AND PUBLIC HEALTH FUND.

This Title authorizes one of the largest sources of funding envisioned by the PPACA to transform the health care system with an initial authorization of \$5B for FFY2010 -2014 with an ongoing \$2B annual authorization ongoing. The program goal is to provide “*for expanded and sustained national investment in prevention and public health programs to improve health and help restrain the rate of growth in private and public sector health care costs.*” Currently, as with other authorizations contained within the PPACA there have been no appropriations to this program largely tied to the politics of healthcare reform. It is not clear whether—and it appears increasingly less likely—this funding will materialize. EMS, with its focus on performance improvement, low-costs,

evidence-based practices and market saturation is uniquely positioned to assist in chronic disease education, monitoring and management. The EMS industry should continue advocating for this funding stream to demonstrate the ability of EMS systems to reduce over-all healthcare costs.

III. Indirect/Unknown Consequences

As with all legislation there are also many unknowns within the PPACA. Ambulance providers and suppliers should anticipate and prepare for bundling, shared risk models, quality metrics, reporting requirements, and globally reduced reimbursement inflation as envisioned in the PPACA. All providers seeking new opportunities available under PPACA must consider the effects their proposals for expanded service may have on other existing providers. EMS agencies considering a CP model must consider the impact on all community-based healthcare providers. Likewise, hospitals, home health agencies and other community based providers considering expanded community nursing and other options must evaluate their proposed model's impact on the local EMS agency. Agencies should seek efficiency within their own discipline where possible, and then fill community healthcare gaps, not duplicate services or minimize or eliminate another provider's ability to continue its core services.

Significant new technology costs such as the implementation of ICD-10 codes; integration of electronic medical records will continue to evolve as implementation rules for the PPACA are finalized. Similar to small and rural hospitals needing to fund complex integrated electronic medical record systems, field EMS providers will need to look at new cooperative and joined provider models to develop the economies of scale and to participate in new funding models under the PPACA.

Many involved in EMS are beginning to recognize the opportunities the PPACA has opened for field EMS to enhance services to both urban and rural communities. The underlying question is whether the EMS community understands itself as part of a fully integrated community health system and is therefore willing to accept the challenges that come with being a part of a larger system. This new model will require that the EMS industry learn new negotiating and communicating strategies in order to take advantage of what the PPACA has created.

A. Problem statement

The National EMS Advisory Council (NEMSAC) has developed this report to explore the topic of Community Paramedicine (CP) and to make recommendations to the National Highway Traffic Safety Administration (NHTSA) and the Federal Interagency Committee on Emergency Medical Services (FICEMS) on this topic.

While NEMSAC believes that CP, as a community-focused extension of the emergency care system has the potential to prevent and reduce the impact of illness and injury and to reduce health care expenses for our payers and citizens, we have also identified factors that hinder CP achieving its full potential. These factors include at a minimum, (1) lack of understanding of specific parts of the PPACA that may be applicable for CP and Mobile Integrated Healthcare (MIH) programs that include reimbursement defined in the PPACA; (2) lack of a national education standards and scope of practice; (3) inadequate training on public health practices; (4) the changing role and responsibility of medical directors in the planning, monitoring and improving CP programs; and, (5) the lack of a standardized methodology for recording the health care visit. NEMSAC believes NHTSA and FICEMS can provide resources and guidance that will address these issues and assist communities in developing high quality CP programs.

BACKGROUND:

CP is not a new topic for the field EMS community. The extension of ambulance service personnel to provide non-emergency public health and primary care activities began with programs in New Mexico and North Carolina [5] in the 1990's. These programs were created to serve communities lacking in primary care resources using ambulance personnel that had received supplemental training. The 1996 EMS Agenda for the Future [6] and the 2004 Rural and Frontier EMS Agenda for the Future [7] describe roles for an expanded care paramedic; the need to integrate EMS into public health initiatives; to improve access to care in rural communities; and, the potential availability of an underutilized workforce. In the early 2000's, taskforces charged with developing the National EMS Core Content, [8] National EMS Scope of Practice Model, [9] and the National EMS Education Standards [10] each considered, and then declined, to add content for an advanced care paramedic.

Meanwhile, healthcare systems in Australia, Canada, and the United Kingdom (UK) (along with a select number of U.S. communities) began an international dialogue dedicated to CP. The first annual meeting of the International Roundtable on Community Paramedicine (IRCP) was held at Dalhousie University in Halifax, NS in 2005. Subsequently the IRCP has fostered rapid and extensive developments and research focusing on CP, primarily in Australia, Canada, New Zealand, the UK and the US.

In the last three years, field EMS agencies have rapidly embraced the concept of broadening their service delivery to their communities. A recent survey fostered by the National Association of Emergency Medical Technicians (NAEMT) and distributed through the Joint National EMS Leadership Forum (JNEMSLF) identified more than 235 Field EMS CP programs in

the U.S. This evolution is complicated in part by no universally adopted standardized nomenclature and scope of services. CP and MIH are used interchangeably in the provider community and trade magazines, whereas others see them as distinct entities. Regardless, both CP and MIH blend components of public health, primary care, public safety and prevention in a service delivery model that is beyond a traditional first responder and ambulance model. Some CP-MIH programs contract for staff members that are independent practitioners, introducing the question as to whether they really are part of the EMS system.

Similar to the heady days of growth in EMS systems forty years ago, innovation is moving far faster than the system's ability to evaluate its impact. One challenge is the need to balance the promise of innovation with patient and provider safety. There are some who seek national standardization for CP and others that oppose it, though all agree that reimbursement for CP is vital. Payers may make some level of standardization a requirement before setting reimbursement amounts.

Some issues that are important for NHTSA and FICEMS to resolve include the identity of field EMS personnel and where state level regulation occurs (state health or public safety departments, state boards, etc.) as compared to regulation of the rest of the healthcare system; the fit of CP within the principles of the PPACA; whether there should be federal reimbursement of CP services; whether the absence of regulation by the states should prompt an intentional slowing of the number of CP or MIH programs; and, what the universally accepted education standards are for both field EMS personnel and non-EMS personnel that are part of either CP or MIH programs. In addition, if either the EMS Agenda for the Future or the Rural and Frontier EMS Agenda for the Future are updated, they should be written emphasizing a "public health" approach. Helpful state data would include a listing of existing or planned legislation or regulation making any separation between EMS, CP and MIH, as well as a listing of any states that require 9-1-1 requests for service to be managed in any particular fashion.

B. Resources/references related to the issue

- American Nurse's Association Essential Principles for Utilization of Community Paramedics
- Community Paramedic curriculum; other curricula when available
- Joint National EMS Leadership Forum 2013 and 2014 surveys
- NHTSA's EMS System Cost Model
- NHTSA's EMS Workforce Agenda
- National Consensus Conference on Community Paramedicine meeting record
- National Rural Health Association Brief
- The Paramedic Foundation's list of commonly used CP and MIH terms
- US Department of Labor website

C. Crosswalk with Other Standards Documents or Past Recommendations

In addition to the documents referenced in Section B, the committee considered these documents:

- EMS Agenda for the Future
- Rural & Frontier EMS Agenda for the Future
- EMS Agenda Implementation Plan
- Paramedic Chief's of Canada Strategy Report
- NHS (UK) EMS Policy Recommendations 2005
- NHS (UK) EMS Policy Recommendations 6 Year Progress Report 2011
- Insitutue of Medicine's Future of Emergency Care in the United States
- Joint Committee on Rural Emergency Care CP Discussion Paper
- National Consensus Conference on Community Paramedicine Research Agenda
- National Association of State EMS Officials survey of state activities in CP
- Federal Interagency Committee on EMS strategic plan
- Medicare Rural Hospital Flexibility Grant Program's (FLEX) CP Evidence document
- Medicare Rural Hospital Flexibility Grant Program's (FLEX) CP Study
- National Association of EMTs CP and MIH Vision Statement

D. Analysis

Paramedicine has been used most often to refer to emergency medical care provided outside of hospitals, although it is by no means limited to emergency care. The evolution of modern paramedicine and field EMS began in the late 1960s in an effort to address the high number of out-of-hospital deaths from trauma and cardiac arrest. [11] Historically, field EMS has focused on providing rapid assessment emergency treatment for persons suffering acute medical problems in community settings while transporting such persons to a hospital emergency department (ED). [12] Field EMS roles have expanded to include inter-facility transport of the non-acute patient, medical standby care at community and sporting events, as well as some routine preventative health services. [13] Over the succeeding decades, field EMS has evolved from a system that handles acute medical emergencies to one that, for a great variety of reasons, has become a primary source of non-emergent primary health care.

As concern about rising health care costs has grown in recent years, increased efforts have been directed at ensuring that expensive emergency care resources are optimally utilized. According to a US Department of Health and Human Services and the US Department of Transportation innovations in EMS white paper [14], the status quo of unnecessarily transporting low acuity medical patients has been shown to have a causative relationship with Emergency Department (ED) overcrowding, delayed care, and a cost of nearly \$1.1 billion for Medicare patients alone. They further suggested by redirecting the estimated 15 percent of Medicare patients needing only low acuity care to alternate health care pathways, the system would save \$600 million annually.

The innovations white paper states, "The pre-hospital EMS system is uniquely positioned to care for 9-1-1 patients and assist less-emergent patients with transport to the most appropriate care setting based on medical and social needs. Such an approach may reduce the total cost of care, provide more patient-centered care and may reduce the burden on EDs, thus enhancing the quality of care received by all patients" (p. 5). [14]

Many field EMS systems have already begun to experiment with the next evolution of pre-hospital health care: CP. The goal of CP is to improve individual and community health, reduce unnecessary hospitalizations and ED visits, and reduce healthcare costs. [15] Early experiences with CP programs suggest they may lead to substantial cost savings and increased access to care. On page 5, the innovations white paper also points out that "An analysis funded by the HHS Office of the Assistant Secretary for Preparedness and Response

(ASPR) indicates that approximately 15 percent of Medicare patients transported to the ED by ambulance can be safely cared for in other settings if available in a community." By doing so, inappropriate use of emergency departments will decrease; unnecessary ambulance transports will decline, ED overcrowding should reduce causing an improved efficiency in healthcare delivery, and vital services can focus on priority patients and CMS, other payers, and the uninsured can experience significant savings. The goals of all reform efforts are summed up by what the Institute for Healthcare Improvement calls the "Triple Aim": lowered costs, improved patient experience and improved outcomes. [16]

As short as it may be, the recent history of successful CP programs reveals an important tenet: that they fill gaps. Because gaps are local in nature, very few if any programs are identical and there is currently a lack of consistency in education, terminology and naming conventions. Inconsistency in education, terminology and naming conventions can lead to disparate services provided to the public, and the inability to formalize educational standards and reimbursement mechanisms due to diverse and entrenched systems. Yet, while existing programs are not identical, there are enough similarities between many that it is possible to identify some training or educational core content.

In the current state, an internationally standardized Community Paramedic curriculum has been developed by the North Central EMS Institute (NCEMSI), and is in its third edition. This curriculum includes a core set of didactic modules and one clinical module that is unique to each locality and is adjusted depending on the local gaps to be filled. NCEMSI provides the curriculum without charge to accredited colleges and universities. It is currently being used by 35 colleges[17] with an additional 120 colleges planning to develop courses.

The Community Paramedic course is designed to educate existing EMTs, AEMTs and paramedics that will be "full service" community paramedics, tightly integrated with primary care providers and caring for a wide range of medical conditions. However, not all CP programs seek to integrate at the care level.

Several urban programs began with the goal of dealing with the mental health patients who frequently call 9-1-1. Early program goals were to place these patients in community mental health facilities rather than transporting them to emergency departments. While a Community Paramedic can manage this focused activity, a mobile integrated health practitioner with a lesser amount of focused training can also effectively manage these patients. There is an existing standard for Community Paramedic education, but there is no existing standard for training mobile integrated health providers dealing with single or a few health conditions. Integrated health paramedic courses ranging from a few hours to 150 hours are currently available. Existing courses in Texas and Colorado provide approximately 120 hours of training.

In general, state EMS offices are charged with the responsibility of protecting the public through two broad mechanisms; the first is to ensure the EMS system operates as required by statute and rule (regulatory role) and the second is to monitor, evaluate and improve the EMS system (system development role). Typically, an advisory board or commission made up of the state's EMS stakeholders is appointed to provide guidance and advice to the State EMS Office in accomplishing these two functions.

The state's regulatory oversight commonly includes the licensure of field EMS agencies and field EMS personnel who must meet standards set by state rule under the authority of state statute. Personnel must be trained under approved curricula and pass didactic and practical testing to demonstrate entry-level competency in order to obtain initial licensure. Most states have adopted a common scope of practice template and training curriculum for field EMS personnel for their traditional emergency response roles [9]. This presents a unique challenge to state EMS offices that wish to regulate CP. While state EMS offices recognize the potential benefit of CP, there is no national standard for the education of or scope of practice for the community paramedic. A national standard would provide guidance to state regulators who seek to provide oversight of EMTs engaged in these services as well as the educational programs that train those EMTs.

Over the past 10 years, much emphasis has been placed on EMS System monitoring and performance improvement. The development of the National EMS Information System (NEMSIS)[18], the National EMS Research Agenda[19] and the EMS Evidenced-Based Guidelines for Prehospital Care project [20] have supported this effort. During their development, the scope and role of Community Paramedics were not envisioned nor in the development of most hospital electronic health record systems. This has resulted in a paucity of standardized clinical data from which state EMS offices could evaluate the effectiveness and safety of CP. As a result many state EMS Offices are uncertain how to incorporate CP into their system performance improvement functions, which are largely dependent upon NEMSIS-based data collection. This will severely hamper research on the effectiveness of CP and remain a major obstacle for its widespread adoption.

Patient and provider safety has taken on national emphasis with the recent publication of the National EMS Culture of Safety Strategy.[21] Without a standardized data collection structure and strategy, patient and provider safety cannot be monitored or assured. This will also remain as a barrier to states that wish to incorporate appropriate legal frameworks for the practice of

CP. There is no national model for the provision of medical direction for community paramedics.

The concept of MIH adds confusion. Many people use the terms MIH and CP interchangeably. Depending upon the structure of the MIH program, it may be organized in a field EMS entity or it may be an independently licensed entity, or a combination of the two. This matters because MIH programs likely operate under the regulatory umbrella of one or more state regulatory offices in addition to the EMS office. As long as there is no consistent definition, education, and scope of practice for MIH and CP, states will be required to address these issues independently.

E. Committee Conclusions

Based on the information provided in this report, Field EMS providers are a vital community resource and uniquely positioned to monitor patients in their home settings as part of the primary care team in a medical home or accountable care organization. Field EMS providers are also positioned to re-route patients to more appropriate healthcare resources rather than simply routing to EDs which are known to disrupt the continuity of ongoing care at the highest cost.

Preliminary studies and pilots have shown that using paramedics in a preventative way can reduce healthcare spending. Field EMS agencies and practitioners can be a powerful resource as the United States struggles to reduce the cost of healthcare through preventative interventions. There are significant challenges to bringing this vision to reality, including but not limited to:

- Diversity of programs already in place.
- Lack of consistency in education, terminology and naming conventions.
- No consistently used data elements (metrics) that can be used for comparative research and understanding.
- Lack of reimbursement as a healthcare service, requires local funding (i.e. grants).
- Lack of meaningful research showing the impact of emergency medical provider's impact on patient health outcomes due to the current inability to link NEMSIS data with other healthcare provider information systems and databases (clinics and hospitals).

Inconsistent education, terminology, naming conventions and data elements collected can lead to:

- Lack of understanding or confusion on the part of the public as to what services are available to them.
- Inconsistent services provided to the public.
- Inability by policy makers to understand the true value of re-deploying these valuable emergency resources in a preventive mode.

The impact of increased education for practitioners and their agencies should be determined, as well as the potential impact to patients being cared for by an unprepared and inadequately

trained workforce. The balance of these interests and impacts will at least inform, and at best direct, future training and education models. States should consider the implications of the ASPR funded AASHTO “Community Paramedicine: A Legal Analysis” report on the ability of the state to regulate CP and MIH programs as well as to determine if the agencies have a legal basis for providing such services.

The accreditations required for educational programs should be determined and stakeholders should ensure an adequate number of accredited education and training programs is available to meet a growing need.

Segments of the Field EMS industry may consider:

1. Identify, categorize, maintain, and disseminate a listing of the broad categories of CP programs.
2. Identify barriers to innovation and adoption and disseminate appropriately.
3. Build upon this document to publicize a vision for innovative practices.
4. Cross-validate cost/quality/care data from emergency medicine, long-term care, primary care and pharmacy/pharmaceuticals to understand impact.
5. Publish reports in peer-reviewed formats in order to disseminate evidence-based information.
6. Develop a resource to assist medical directors in providing oversight of CP programs.
7. An international registry of Community Paramedic and Integrated Health Paramedic programs, and an international registry or International College of Community Paramedic Practitioners, should be established.
8. A resource portal of existing CP and MIH courses should be maintained.
9. Develop the necessary knowledge, skills and abilities (KSAs) to collect program data, analyze data, and develop outputs for EMS agency and CP program performance measurement and cost savings implications.
10. Disseminate CP and MIH information to assist state EMS offices and local agencies in adopting innovative practices.

The Department of Transportation should consider modifying NEMSIS to include CP and MIH data elements determined necessary for performance measurement cost/benefit analysis and other information and analysis.

FICEMS should consider fostering the following as appropriate:

1. Convene an expert workgroup to evaluate strategies for collecting data, and to develop performance measures for monitoring and improving CP. (FICEMS Strategic Plan Objective 1.1)
2. Support the development of a data standard consistent with NEMSIS that can be integrated with healthcare systems under their Meaningful Use mandates.
3. Determine the qualitative data elements (inputs, calculations and outputs) necessary for federal agencies to determine CP and MIH performance and cost effectiveness. (FICEMS Strategic Plan Objective 1.1, 4.2)

4. Identify administrative strategies for increasing the role of field EMS as part of a national strategy on reducing cost and improving quality. (FICEMS Strategic Plan Objective 1.3, 2.5)
5. Seek opportunities within its member agencies to reward EMS innovation in furthering the Institute for Healthcare Improvement's (IHI) Triple Aim through their grants. (FICEMS Strategic Plan Objective 4.2)
6. Review the National Consensus Conference on Community Paramedicine (NCCCP) Research Agenda and promote and fund projects identified therein. (FICEMS Strategic Plan Objective 2.2, 2.3)
7. Support, as appropriate, funding for grants as outlined in Part III, Subtitle F, Sections 3504 and 3505 of the Patient Protection and Affordable Care Act (see description on page 3).

Recommended Actions/Strategies:

Department of Transportation, National Highway Traffic Safety Administration

NHTSA, working with their partners at the Departments of Health and Human Services and Homeland Security, should convene a national healthcare stakeholder strategy meeting on the implementation of CP and MIH that achieves the following:

- 1) Brings together a wide variety of healthcare stakeholders, including the medical and nursing communities, hospitals, home health, CMMI Innovation grantees and others;
- 2) Builds upon previous consensus work such as the National Consensus Conference on Community Paramedicine; and
- 3) Develops consensus on the following topics and policy areas for Community Paramedicine and Mobile Integrated Healthcare programs:
 - a. Integration with other medical professions and broader health systems;
 - b. Educational requirements for an expanded role of EMS practitioners;
 - c. Common data collection and measures of success;
 - d. Sustainable financial models for CP and MIH, particularly those integrated with value-based purchasing models;
 - e. How CP and MIH can enhance the patient experience, including access to high-quality care;
 - f. Medical direction and regulation of providers.

Outputs of this meeting should be a published paper with actionable strategies to guide further implementation of CP and MIH.

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FICEMS Strategic Plan Goals and Objectives

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

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

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

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

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

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

Goal 2 Data-driven and evidence-based EMS systems that promote improved patient care quality

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

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

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

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

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

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

Goal 3 EMS systems fully integrated into State, territorial, local, tribal, regional, and Federal preparedness planning, response, and recovery

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

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

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

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

Goal 4 EMS systems that are sustainable, forward looking, and integrated with the evolving health care system

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

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

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

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

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

Goal 5 An EMS culture in which safety considerations for patients, providers, and the community permeate the full spectrum of activities

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

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

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

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

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

Goal 6 A well-educated and uniformly credentialed EMS workforce

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

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

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

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

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