

Improving Access to EMS and Health Care In Rural Communities: A Strategic Plan



**By
The Joint Committee on Rural Emergency Care
Of and For
The National Association of State EMS Officials
And
The National Organization of State Offices of Rural Health**

July, 2010

Improving Access to EMS and Health Care in Rural Communities: A Strategic Plan

I. Executive Summary

Rural health care is jeopardized by a decline in the availability of local health care facilities, less access to preventive and primary care services, and greater distances to increasingly regionalized specialty care services. Rural emergency medical services (EMS) are more often called upon for longer distance transports and to perform services and referrals normally provided by other (now missing) health care providers. Yet because these services operate largely in isolation from most of the health care system, have a declining volunteer workforce, and have few reimbursement and performance incentives, they find it difficult to perform traditional EMS functions, much less widening their scope of service. This paper cites those deficiencies, suggests direction for the future, and details actions and actors necessary to achieve that direction.

The Joint Committee on Rural Emergency Care (JCREC) was formed by the National Association of State Emergency Medical Services Officials and the National Organization of State Offices of Rural Health to address mutual interests in rural emergency medical services (EMS).

This paper is an initiative of the JCREC to provide national EMS planners with strategies for improving both rural EMS and health care in general. Its premise is that improved formal integration of EMS and community health care, following in informal footsteps that have been taken in this regard across the country in recent years, changes in workforce roles and perspective, and changes in the way EMS is measured and paid for will accomplish these improvements.

In the table immediately following are concepts that are key to understanding the strategies for improvement. The next section of the paper describes how history has led us to the present state of rural EMS provision, what that current system looks like, and how it should be changed in the future to better serve rural communities. The final section addresses specific problems in the current system as well as concepts for an improved system and assigns strategic actions and responsibilities for carrying out those actions. These are generally grouped to address system integration, workforce, and service measurement and reimbursement priorities.

Some Key Concepts

Community Paramedicine/Community Paramedic/Community EMT

The concepts of “paramedic paradox” and “community paramedicine” were introduced in a 2001 issue of *Rural Health News*.¹ The paramedic paradox is that the further a community is from a hospital the more its residents may benefit from local basic and advanced EMS intervention, but it is also less likely that these services will be available in an emergency. Maintaining such a high level of EMS response in an area where call volume is low makes it costly and difficult for EMS staff to keep skills sharp. Community paramedicine has become synonymous with integrating EMS and primary care. In a community paramedicine setting, paramedics and EMTs would be trained to carry out primary care roles as dictated by the needs of that community. Reimbursement, or other financial support for those services would enable the community to employ EMTs and paramedics, and the primary care clinical services they would perform would keep their skills sharp between EMS calls. Community paramedics and community EMTs have existed, without formally being called that, in many settings and in many countries.^{2, 3} They are found in rural health clinics and hospital EDs, as well as going to patients’ homes in ambulances to provide preventive and primary care services. Community paramedics are envisioned as having a specific set of general primary care and prevention training, such as that provided by the first formal class graduated from a Minnesota program this past year⁴. They would use some or all of that training which is appropriate to the needs of their particular community and may augment that with the use of wireless telemedicine capabilities to a supervising provider. The term “community paramedic” is generic and the same type of practitioner may exist with a different title such as “advanced practice paramedic”. Community paramedic initiatives have also emerged in more urban settings as ways to cope with overuse of 911 systems for non-emergencies and to address pandemic flu.

Medical Home

Medical home, also known as patient-centered medical home, is defined as “an approach to providing comprehensive primary care that facilitates partnerships between individual patients and their personal physicians, and when appropriate, the patient’s family”⁵. The provision of medical homes may allow better access to health care, increase satisfaction with care, and improve health. It also introduces the concept of providing physicians with funding to enable a wide array of practitioners to be utilized whose services are not traditionally reimbursable in private practice arrangements such as dietitians. Under this arrangement, physicians might fund and utilize community paramedics and EMTs, supplementing public health, EMS and other funding available to better assure the availability of these practitioners in the community.

Universal Minimum Access to EMS and Regional Core EMS Agencies

Introduced here, universal minimum access to EMS (UMA-EMS) means that, by law (unless otherwise assured), an EMS preparedness system that provides the general assurance of reasonably prompt basic life support response, access to advanced life support intervention, and access to mutual aid services is to be established for every community. This may be accomplished through the provision of a combination of local and regional response and transport arrangements that does not rely on, but may be augmented by, volunteer response services. The intent is to provide routine EMS response to at least the same degree that law enforcement and fire response are assured. Key to the success of UMA-EMS is the designation of regional core EMS agencies that actually provide all EMS response for a region or, through business agreements and mutual aid pacts, provide some of the response directly and some contractually (e.g. the core agency may have a business relationship for secondary ground transports and for emergency air medic response). Regional core EMS agencies do not rely on volunteers for their response but may utilize volunteer providers and agencies to augment their response.

II. Setting the Stage: Rural EMS Past, Present, and Future

A. The Provision of EMS: Where We Are Now and How We Got Here

From the conception of modern emergency medical services (EMS) in the late 1960’s to its birth as a multi-component system of care under the EMS Systems Act of 1973 (Public Law 93-154)⁶ and revision of those components in documents such as the 1996 *EMS Agenda for the Future*⁷ and the 2004 *Rural and Frontier EMS Agenda for the Future*⁸, EMS has been cast with a broad

description. It is responsible for trying to prevent emergent illness and injury and, when it cannot, to minimize their impact on the patient, his or her family, and society through intervention and rehabilitation.

Yet, while prevention and rehabilitation have been specific elements of this EMS job description, the way the role has been implemented rarely reflects these. Typically, the public would define EMS as an ambulance and its crew responding to an emergency, providing care, and taking the patient to a hospital. Most EMS providers would not characterize the EMS role differently. The leading payer for EMS, the federal government through its Centers for Medicare and Medicaid Services (CMS), only pays for EMS if a patient is transported to a health care facility. Except for routine interaction with emergency department (ED) staff, interaction with hospital and community health facility staff during patient transfers, and some clinical training experiences, this narrowed EMS role is largely disconnected from the health care system and its social services support system. Rural EMS providers may lack knowledge of and connections with resources to which patients might be appropriately referred. At the same time, absent other providers, they may be the health care provider most likely to be called on for a variety of non-emergent health needs. Paramedic-level services may be more useful the further distant from a hospital a community finds itself, but they also may be the less likely to be afforded because of the high cost to establish and maintain them and low call volume to support their practice. This is the rural paramedic paradox.

The provision of EMS, particularly in rural areas, has historically been carried out on a volunteer basis more than most other public safety and health care jobs. Without attributing cause or effect, this characteristic has certainly reinforced the narrowing of the EMS profession description and has caused the small, local ambulance service to proliferate because it is easier to recruit volunteers for a narrowly defined, exciting responsibility in their own community. These characteristics work against EMS providers focusing on anything but emergency patients, developing other services, developing career ladders or establishing a professional identity. They also make it difficult to create or attract effective EMS agency or medical leadership. These characteristics and the general decline of volunteerism have led to an increasing inability of rural volunteers to provide basic EMS even in its narrow form. Unfortunately, this occurs at a time when they are also increasingly being called upon to fulfill EMS' original, more widely defined role because local hospitals, primary care providers and other health services are disappearing or are becoming overwhelmed in rural communities.

One coping mechanism that has become evident has been the use of EMS personnel to augment primary care and other health care personnel and services in rural communities.² The use of paid EMS personnel in rural clinics, hospitals, and elsewhere has filled gaps in community health care needs while allowing them to be in the community to respond to emergencies. This practice has become more formally identified as “community paramedicine”, a tool to help meet both the EMS and general health care needs in a community.^{2,3} There is now an International Roundtable of Community Paramedicine (IRCP) which recognizes a variety of such practices and systems around the world.³ In the United States, there is a desire to formalize the roles of community paramedics and EMTs by establishing formal training programs⁴ and making them eligible for reimbursement for their services under medical home⁵ and other third party payer models.

Partnership between local EMS providers and Critical Access Hospitals has been emphasized in federal funding programs, and bears promise in implementing community paramedicine.

The provision of EMS has not, historically, been established on evidence that the practices inherent in it result in better outcomes for the patient. Nor has there been on-going performance improvement oversight of practitioners until recently and largely in more urban, paid services. In rural volunteer services, there is little incentive to create “big brother” oversight programs which create more work for service leaders and may impair volunteer retention. Reimbursement for EMS remains largely tied to performing transport and not to performing practices which improve patient outcomes or contribute to preventing the acute event in the first place.

B. The Provision of EMS: Where We Want to be in the Future

In the future, rural America will be better assured a universal minimum access to EMS (UMA-EMS), including both basic life support (BLS) and advanced life support (ALS). Unless otherwise assured, state statute (public health, public safety and/or insurance laws) will require that communities provide this access in the same manner that they are required to for police and fire response.

This will include reliance on a variety of EMS resources such as non-transporting first responders with BLS and ALS vehicles, ground and marine emergency response ambulances, secondary transport BLS and ALS ambulances, and fixed wing and helicopter air medical services (AMS). These will be operated by volunteer and paid providers operating around a regional core EMS service with paid providers. This EMS will be expanded and integrated with medical home systems through community paramedicine providers operating from rural clinics, hospital EDs, or EMS centers. These will be overseen by medical home primary care physicians for primary care functions and by emergency physicians for emergency response functions. Community paramedicine providers will coordinate their emergency response, secondary transfer, and other non-primary care operations with the regional core EMS service, as well as with regional, accountable systems of specialty care⁹, and AMS and other specialty responders. Strong partnerships between regional core EMS services and CAHs forge strong response and community paramedicine capabilities.

Regional core EMS services assure UMA-EMS response utilizing paid personnel. They coordinate with and may provide leadership, administrative and other services and resources for volunteer agencies which remain in their response region. Career ladders form around administrative and training/educational tracks in these larger, regional core services and through the community paramedicine and regional specialty systems of care and specialty (e.g. AMS) response.

The more broadly defined EMS role includes emergency and primary care practices based on scientific evidence wherever possible. Regional core providers contribute to scientific knowledge on which these practices are based by participating in research sponsored by lead facilities in regional specialty care systems and are incentivized to do so. Performance of these practices is measured and assessed for possible improvement on an on-going basis. Reimbursement is based on both a quality and quantity basis (pay for performance) and

recognizes the cost of safety net preparedness. Reimbursement is available for emergency responses which do not result in transports (“treat and release”). Community paramedics and EMTs are eligible providers in medical home systems. The contribution of community paramedicine and “treat and release” protocols to decreasing rates of 9-1-1 calls, ED admissions, inpatient admissions, and clinic visits are assessed for the medical home and emergency response populations served.

III. Priority Issues for the Provision of EMS in Rural America

The purpose of this section is to dissect the problems of the current system and the desired state of the future as generally described above and to present specific strategies for addressing them, including what the strategy is, when it can be achieved, and who should bear primary and supporting responsibility.

A. Integration with Health Care Systems: Redefining the Role of EMS

1. Where We Are Now

- a. EMS as a basic public service and safety net varies greatly from community to community with respect to funding type and amount, umbrella organization type, level of care provided, and staffing. Increasing demand for secondary transfer of patients from community hospitals to those with higher levels of services strains these resources, as do the volume of unnecessary transports and the CMS reimbursement incentive to transport all patients. Time-dependent transfer of STEMI, stroke, trauma and other patients is jeopardized when local back-up ground transfer services are not integrated with response systems that rely heavily on air medical services. These services and hospitals should serve as the backbone of disaster plans, however without effective integration, they may fail under the stress of a major incident. Locales that could most benefit from ALS are unable to support ALS.
- b. Community members, and even leaders, are not generally aware of the status of their EMS preparedness with respect to the characteristics in 1.a unless a problem with the service emerges. The benefits of ALS are not generally understood.
- c. Rural communities have medical and health care needs that cannot be adequately met by current resources. Enhanced preventive care and earlier detection of acute illness could reduce morbidity and its related societal costs if additional resources existed to provide them.
- d. EMS is seen and treated as a stand-alone public service like fire and police with little or no integration into the larger health care system at the local (e.g. rural health centers, visiting health/nursing services, preventive health services), or regional (hospitals and specialty centers) levels. The evolving concept of medical home services does not commonly envision EMS as a participant.

- e. Communication between EMS personnel and the rest of the health care infrastructure is limited to hospital ED staff and is limited to episodic, brief voice communications. Given the amount of time spent with rural patients on relatively long calls, there are missed opportunities for more robust voice and data communications that could result in more insightful, timely, and well-informed care, transport, and referral that could significantly decrease the overall cost of care and improve the quality of life for these patients. This communication could include telemedicine capabilities as well as the sharing of relevant electronic health records and facilitate potential referral to a primary care “medical home” instead of transport to ED.
- f. Inadequate integration of EMS and its providers results in episodic care and transport (with EMS treated as primarily a transporter). For patients with chronic health issues who call EMS for an “acute flare” of their chronic disease, the only current option for EMS is to transport these patients to the ED. These patients experience the “revolving-door” of health care utilizing large amounts of health care resources and dollars with little if any improvement in their health status. Once their acute flare has been treated and stabilized (in an expensive emergency setting), they are then discharged back to their home only to await the next “acute flare” of their chronic disease. For other patients who call 9-1-1 but are insufficiently acute as to require transport, “unintegrated” EMS providers have no mechanisms for appropriate primary care referral. Without resolution of underlying issues, these patients will soon experience the “revolving-door” of health care reserved for “frequent fliers” until they become sufficiently acute to be transported. By that point, opportunities may have been lost for effective early intervention and more cost effective care.

2. Where We Want to be in the Future and Action Steps to Get There

- a. Two approaches are employed to give state officials options for achieving the universal minimum access to EMS (UMA-EMS):
 - A model state statute is developed and used by state EMS offices to achieve statutory changes requiring the universal minimum access to EMS (UMA-EMS) standard in their states.
 - i. What: Craft model state statutory language.
 - ii. When: 2010
 - iii. Who: National Association of State EMS Officials (NASEMSO)
 - Incentives are created in health insurance programs to encourage adoption of UMA-EMS.
 - i. What: Explore and recommend opportunities in health insurance programming for incentives to be pursued by state rural health and EMS officials to encourage UMA-EMS.
 - ii. When: 2010 - 2011
 - iii. Who: National Organization of State Offices of Rural Health (NOSORH)

- b. Community (or Regional) evaluations are routinely performed independently, as part of the community budgeting cycle, or as part of a larger community health assessment process. Based on these evaluations, communities determine their status for providing a UMA-EMS response (e.g. through an informed self-determination process¹⁰) and changes that need to be made to improve the system (see B.2.a, below).
 - i. What: Develop a guidance document that suggests ways in which such evaluations/self-determinations may be accomplished as stand-alone processes or as part of larger community/regional health system or public health evaluation and planning processes. This should include a description of available evaluation/self-determination processes and tools and potential funding sources.
 - ii. When: 2010-2012
 - iii. Who: Critical Injury and Trauma (CIT) Foundation in conjunction with JCREC.

- c. Community paramedicine is facilitated, tailored to augment existing services in particular locales, and well integrated into local and regional health care systems. Some community paramedicine providers provide leadership, oversight and coordination of volunteer and paid emergency responders and work in coordinated ALS response with regional core service providers.
 - i. What: Incorporate these concepts in the position paper(s) described in B.2.a, below, and in the considerations in A.2.a, above
 - ii. When: 2010 - 2012
 - iii. Who: NASEMSO/NOSORH (Joint Rural Emergency Care Committee – JCREC).

- d. Appropriate regional secondary transfer service is assured by the regional core service provider and well integrated as back-up to AMS for time-dependent conditions. There are protocols enabling EMS not to transport when transport by ambulance is deemed unnecessary by EMS and medical direction staff. These protocols are accompanied by resources coordinated through community paramedicine providers for referral of the non-transported patient as necessary.
 - i. What: Incorporate these concepts in the position paper(s) described in B.2.a, below and in the considerations in A.2.a, above.
 - ii. When: 2010 - 2012
 - iii. Who: NASEMSO/NOSORH (JCREC)

- e. Telemedicine resources and EMS communications include fiber-based and wireless broadband capability, which may be linked to extend communications to specialty centers, AMS and other specialty responders in regional specialty systems of care. Video and other data applications exist for comprehensive, real-time uploading of multi-vital sign patient telemetry, other diagnostics and video, as well as downloading of relevant electronic health records that can be shared with emergency and community paramedicine providers as needed.

- i. What: Publish the NASEMSO/NAEMSP expert panel report on technology applications in EMS and their communications implications. Continue to participate in all national public safety communications forums to promote development of these capabilities.
 - ii. When: 2010 - 2015
 - iii. Who: NASEMSO communications committee and technology advisor, utilizing the Joint National EMS Leadership Conference (JNEMSLC) and its communications technology advisor, and coordinating with the JCREC.

- f. Regional core EMS services utilize a mix of response vehicles and teams (ALS, BLS, specialty) to respond appropriately to the nature of the call according to a system of emergency medical dispatch (EMD) that is based on national standards and as generally guided by medical directors in regional specialty systems of care.
 - i. What: Include these considerations in the position paper(s) described in B.2.a, below, and in A.2.a, above.
 - ii. When: 2010 - 2012
 - iii. Who: NASEMSO/NOSORH (JCREC)

B. Workforce: Professionalizing and Resourcing the Provision of EMS

1. Where We Are Now

- a. The rural EMS workforce is largely volunteer, with some services moving to call pay incentives, and/or part- and full-time paid positions to augment the volunteer force. It is not uncommon for volunteer services to depend on regional paid services to provide coverage for them when there are no duty volunteers available⁸. In some areas, volunteer services still provide a reliable, reasonable response, often utilizing the methods just described. In others, response times may be unreasonable, and the level and quality of care less than desirable for long transports to definitive care.

- b. The ability to qualify, coordinate, train, maintain the wellness of, and equip largely volunteer forces to optimize safe response and medical care practices is jeopardized by the constraints of volunteer availability, ability to control/influence volunteers, and funding to provide redundant personal protective and other safety supplies and equipment for decentralized (from home, work and the like) response.

- c. It is commonly thought that EMS is a young person's profession because of the physical and mental demands on providers. A volunteer force in rural America is challenged to find young volunteers willing to commit time to training and volunteering. The young often move away to go to school or find jobs. In a challenging economy, young families who are in the community may have little spare time after working enough to make ends meet and to raise a family. Combined with these pressures, those who volunteer for EMS may suffer sleep deprivation, decreased work productivity and other wellness issues. These and the general nature of the EMS role contribute to volunteer turnover (Center for Research on EMS, study on turnover <http://bit.ly/EMS-Research>).

- d. Advanced life support is thought to be more important the further one is from definitive care centers. Paradoxically, it is in these same distant, rural communities that one is least likely to find ALS. Paramedic and EMT-Intermediate levels of care require an extensive and intensive training commitment and require a certain level of practice experience to maintain competency. The volunteer workforce is challenged to be able to sufficiently commit to the former, and low EMS volume in rural areas cannot assure the latter.
 - e. Paramedics and EMTs often use EMS as a “springboard” to move into other health professions or into administrative roles in healthcare.
 - f. Training is often tied to technical schools with varying quality and accessibility. Clinical experience and training is even more varying in quality and accessibility.
2. Where We Want to be in the Future and Action Steps to Get There
- a. Every community is served by a mix of local and regional services that utilize paid staff to assure a reasonable and reliable BLS and ALS mix of services provided based on patient condition and need. These regional core EMS agencies services utilize paid staff and coordinate with or employ local community paramedicine providers who are central to EMS leadership in the area. These core agencies coordinate with remaining local volunteer EMS providers to enhance response and patient care but are not dependent upon them to accomplish reasonable and reliable response and care. The core service leaders may provide administrative services and other resources to support the remaining local volunteer services and/or may encourage consolidation of such services as indicated by performance measures. This is the UMA-EMS system model. Communities whose informed self-determination process dictates a model other than UMA-EMS may face disincentives.
 - i. What: Develop a position paper or papers (one or more to maintain both conciseness but also conceptual continuity) explaining the UMA-EMS, community paramedicine, and regional core service models, including the state statutory and health insurance models included in A.2.a above, and consideration of the already published JCREC Integration position paper.
 - ii. When: 2010 - 2012
 - iii. Who: National Association of State EMS Officials
 - b. In UMA-EMS systems, the core EMS service provides and enforces contemporary employee health and safety guidelines, processes, supplies, and equipment and also guides and assists remaining volunteer providers in accomplishing the same.
 - i. What: Develop a position paper outlining the minimum standards for “contemporary employee health and safety guidelines, processes, supplies, and equipment” for an agency to provide EMS.
 - ii. When: 2010-2012

- iii. Who: National EMS Management Association (NEMSMA) and the National Association of EMTs Safety Group as requested by and in conjunction with JCREC.
- c. In UMA-EMS systems, the regional core services and community paramedicine employers proactively maintain career ladders among the BLS, ALS, secondary transfer, regional air medical, health care facility, and community paramedicine services they provide or interact with in clinical, training, administrative and other career tracks.
 - i. What: Develop a position paper presenting guidelines to coordinate career advancement opportunities, including education/training ladders and bridges and career/position ladders and bridges, which connect most or all staff positions involved in the provision of EMS in the region. This should include all EMS-related institutional and agency positions in the core region.
 - ii. When: 2011-2013
 - iii. Who: NASEMSO Training Coordinator Council in conjunction with the National Association of EMS Educators (NAEMSE).
- d. Regional core EMS agencies and community paramedicine providers have formal, contractual and paid relationships with primary care and emergency medicine physicians.
 - i. What: Describe these goals and their implementation as part of the position paper developed in B.2.a above, drawing on documents and model agreements developed by the National Association of EMS Physicians (NAEMSP), the American College of Emergency Physicians (ACEP) and the International Roundtable of Community Paramedicine (IRCP).
 - ii. When: 2010 - 2012
 - iii. Who: NASEMSO with assistance from NAEMSP, ACEP, and IRCP and/or their publications.
- e. Community paramedicine training programs are accessible and affordable in states where community paramedicine providers are needed most. The improved integration that community paramedicine services provide with the health care system in general, opens facility doors for EMS clinical experience. Community paramedicine providers serve as clinical mentors and tutors in the primary care settings in which they work.
 - i. What: Develop a position paper, based on the experience of the Minnesota pilot program and IRCP member experience, on the development, funding and maintenance of community paramedicine training programs. This should include incentivizing the establishment of text materials, college-affiliated training/education programs, and clinical training sites. It should encourage the development of curricula allowing

for core material as well as flexible material to meet the differing needs of communities across the country.

- ii. When: 2010-2012
- iii. Who: Mayo Clinic/Mayo Medical Transport in conjunction with NAEMSE and the IRCP and their members.

C. Performance: Measuring and Paying for the Provision of EMS

1. Where We Are Now

- a. The clinical and operational practices of EMS have evolved largely from hospital clinical practices and public safety operational practices without a basis in scientific evidence of value in out-of-hospital settings (^{1, 12, 1}Overton). A call for the development of evidence-based practice was made in the 2006 Institutes of Medicine report *EMS at the Crossroads*¹². A further complication for rural EMS is that long transfer times and distances, the settings of injury and illness and rural culture may make practices based on urban research less applicable. Unfortunately, rural-based EMS research is more difficult to carry out because of the lower call volumes experienced.
- b. Performance measurement is not often a high priority in rural and frontier services struggling to recruit, retain and get volunteers out the door to emergency calls. In the modern era of “high performance” EMS in urban and suburban settings with performance benchmarks frequently linked to monetary incentives, rural and frontier services are likely relatively low performers, with one response type for all call types perhaps connecting with a provider of ALS as needed.
- c. Reimbursement remains connected by CMS to transport. Governmental subsidies and local fund-raising may supplement or replace patient-generated revenue in rural volunteer services. Financial pressures to employ these methods of revenue generation increase as the need for monetary incentives to generate or replace volunteers increases. Seeking additional subsidy is rarely tied to performance measures except for the ability to respond at all.

2. Where We Want to be in the Future and Action Steps to Get There

- a. State protocol (and where applicable, in UMA-EMS systems, local protocol) development involve the tertiary care centers central to regional coordinated and accountable systems of specialty care. These systems and staff drive the consideration of evidence-based practice upon which to base new protocols and organize regionwide and/or statewide research projects to study rural treatment efficacy.
 - i. What: Develop a position paper describing the implementation of evidence-based practice (as described by the 2009 NHTSA project) and protocols in state and regional EMS systems. This should include consideration of implementing research activities within state and regional EMS systems (especially in rural areas which may require inter-regional and inter-state cooperation to achieve sufficient critical mass for study) to support evidence-based protocol development.

- ii. When: 2012-2014
 - iii. Who: NASEMSO Medical Directors Council in conjunction with NAEMSP and the Society for Academic Emergency Medicine (SAEM).

- b. In UMA-EMS systems, performance benchmarks are required as part of the system evaluation leading to informed self-determination decisions. High performance system conventions for tailoring response to call profile and resource type and basing are also included in these evaluations.
 - i. What: Include these considerations in the position described in B.2.a.
 - ii. When: 2010 - 2012
 - iii. Who: NASMESO in conjunction with the National EMS Management Association (NEMSMA) and the North Central EMS Institute (NCEMSI).

- c. Reimbursement is tied to service provision and patient condition and is not dependent on patients being transported. Community paramedicine providers are included in medical home reimbursement and/or other reimbursement arrangements for rural primary care physicians and facilities utilizing them as primary care staff between EMS calls.
 - i. What: Explore and develop specific recommendations for inclusion of EMS services (treat/release and other) and community paramedics/EMTs in current CMS, medical home systems, and other methods of reimbursement and proposals for same.
 - ii. When: 2010-2015 (starts immediately and maintain as an on-going priority).
 - iii. Who: JCREC in conjunction with Advocates for EMS (AEMS).

IV. References

1. Rowley T.; *Solving the Paramedic Paradox*; Rural Health News; Volume 8, Number 3, Fall 2001 .

2. McGinnis, KK; *Rural and Frontier Emergency Medical Services Agenda for the Future*; National Rural Health Association Press; Kansas City, MO; 2004; pp. 6-7

3. International Roundtable of Community Paramedicine; “History”; <http://www.ircp.info/Home/tabid/233/Default.aspx> ; accessed March, 2010

4. Minnesota Community Paramedic Training Program Description <http://www.health.state.mn.us/divs/hpsc/hep/transform/dec10documents/communityparamedic.pdf> ; accessed March, 2010

5. Medical Home Model Descriptions:
 - <http://www.medicalhomeinfo.org/joint%20Statement.pdf> ; accessed March, 2010

- http://en.wikipedia.org/wiki/Medical_home; accessed March, 2010 (quote citation)
6. Public Law 93-154: <http://history.nih.gov/research/downloads/PL93-154.pdf> ; accessed March, 2010
 7. U.S. Department of Transportation (NHTSA); *Emergency Medical Services Agenda for the Future*; TR Delbridge, Editor; NTS-42, Item Number 808-441, 1-96. 1996. Washington, DC
 8. McGinnis, KK; *Rural and Frontier Emergency Medical Services Agenda for the Future*; National Rural Health Association Press; Kansas City, MO; 2004
 9. *Emergency Medical Services at the Crossroads*; Committee on the Future of Emergency Care in the United States Health System; Board on Health Care Services; Institute of Medicine of the National Academies; p. 72 and elsewhere throughout; 2006
 10. McGinnis, KK; *Rural and Frontier Emergency Medical Services Agenda for the Future*; National Rural Health Association Press; Kansas City, MO; 200; pp.40-41