Defining the Role of EMS in Our Nation's Health Care Transformation
The New EMS Value Proposition

Our nation's health care system is in the process of transforming from a fee-for-service delivery model to a patient-centered, and value and outcomes-based model. Emergency Medical Services (EMS) is uniquely positioned to support this transformation and help achieve the Institute of Healthcare Improvement's (IHI) Triple Aim of improving the patient experience of care, including quality and satisfaction, improving the health of populations, and reducing the per capita cost of health care.

To realize the potential value of EMS in this new health care environment, EMS must undergo its own transformation into a "New EMS". The need for, and experience with, transformation is not new for EMS.

A Bit of History

Before the mid-1960's, the *service line* of ambulance operators was primarily transportation. The *value* of ambulance service was fast response to an emergency and fast transportation to an emergency care site or facility.

The birth of modern EMS occurred between the mid-1960s and passage of the EMS Systems Act of 1973. The *value* of EMS increased by adding to rapid response and transportation, the appropriate handling of the ill or injured and the administration of stabilizing care and some life-saving emergency treatments in an organized system of emergency care.

From the 1970's through the 1980's, a new set of EMS *values* were considered, that the modern EMS system of care should extend from:

- *primary prevention* (to prevent injuries and emergency illnesses from occurring), to
- *secondary prevention* (to respond rapidly to emergencies when primary prevention fails and mitigate the impact of the evolving condition), to
- *tertiary prevention* (to provide care to prevent the reoccurrence of the injury or emergency illness).

This notion faded, however, as considerations of operational simplicity and state legislation locked EMS solely into the *service lines* of medical transportation and emergency medical intervention. Discreet services such as car seat installation, seat belt education, and blood pressure clinics remained as vestiges of the primary and tertiary prevention values of a New EMS.

In 1996, these ideas, predictive of the New EMS concept, reappeared when the landmark *EMS Agenda for the Future* called for EMS to add *service lines* and, therefore, *value* to its communities served through:

"Community-based health management….fully integrated with the overall health care system…able to identify and modify illness and injury risks…able to provide acute illness and injury care and follow-up, and, able to contribute to treatment of chronic conditions and community health monitoring…"

This theme was reinforced by the 2004 *Rural and Frontier EMS Agenda for the Future* which not only repeated the recommendation to embrace primary and tertiary prevention, but suggested a specific *service line* for a New EMS: "EMS based community health care" or "community paramedicine", a notion that had first appeared in publication in 2001[1].

Applying Community Paramedicine Concepts to Today's Challenge

Current U.S. health care expenditures per capita and as a percentage of our nation's gross domestic product outpace all other developed nations, yet most key health care indicators, such as life expectancy and infant mortality, lag behind. Simply stated – we are not getting a good return on the health care dollars we spend, and our country can no longer afford our health care bill. Current health care expenditures absorb about 24% of all federal government spending, and that percentage is projected to grow exponentially in the next decade.

This daunting landscape has spurred a fundamental shift in the way that health care is provided and financed in our country. Health care payers - both private insurance companies and the federal government, through Medicare and Medicaid - are transitioning from a fee-for-service payment model that links payment to the *quantity of care provided* to a payment model linked to the *quality of care provided and measurable patient outcomes*. As a result, previous distinct healthcare delivery entities including hospitals, physician groups, nursing homes, and many others, are being incentivized to coordinate the care they provide resulting in the creation of large "integrated healthcare delivery systems."

Health care payers also realize the potential for savings by keeping people healthy in the community through prevention programs rather than treating avoidable illnesses and injuries in a hospital. In looking at the provision of ambulance services, there is a growing awareness among payers that decisions made in the field impact not just the cost of the transport, but also downstream costs in the emergency department and subsequent charges that result from patients being taken to the hospital. Reducing patient episodes that require ambulance transport is certainly consistent with the goals of the health care transformation and the IHI Triple Aim. Indeed, the time is fast approaching when EMS will have to answer hard questions about the *value* of all those current ambulance transports to hospital emergency departments.

As a result of their *value* in addressing these issues, new service lines such as CP (together with response, medical intervention and transportation) form a New EMS that has been implemented in many forms and in dozens of communities in North America following the *Rural/Frontier Agenda's* publication, and its presence is rapidly expanding. New EMS agencies have developed patient *service lines* focused on prevention that fill a health care gap in their communities. Some agencies have added ***community paramedicine*** (CP) as an additional *service line* offered by their agency. Some agencies have collaborated with other health care providers/agencies in their community as part of a ***mobile integrated healthcare*** (MIH) system. These concepts are defined below.

1 – Rowley TD, Solving the Paramedic Paradox. *Rural Health News*, 8:3:1-5; Fall, 2001

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The New EMS Value Proposition
To remain relevant and valued in this new healthcare paradigm, EMS agencies need to offer service lines including a menu of emergency and preventative medical services that meet the particular needs of their communities. Even services that are confident in their tax-based support may not be able to focus solely on emergency response if they cannot demonstrate value.

The New EMS service lines include (performance measured for effectiveness, and in every aspect data-driven):

- Emergency medical dispatch (including provision of, or affiliation with, advice lines for patient navigation),
- Rapid response, emergency and critical care (ground and airmedical) transport,
- Interfacility and other medical transportation,
- Emergency medical assessment and intervention (basic life support, advanced life support, tactical and wilderness emergency care),
- Logistical, operational, or clinical support of mobile integrated healthcare ("MIH") services operated by the EMS agency or by another agency, facility or system.
- Community paramedicine services, which may be an integral part of an MIH system or operate as a stand-alone, can include some or all of the following-
    - urgent medical assessment and care,
    - preventive medical assessment and care,
    - chronic disease assessment and management support,
    - post-discharge follow-up assessment and management support, and/or
    - based on the assessments described above, patient transport, arranged transportation, or referral to other community health and social service resources.

The New EMS provides essential value to the transforming health care system because:

- EMS is already in virtually every community.
- EMS is fully mobile and able to address patient needs 24 hours a day, seven days a week, and 365 days a year.
- EMS is an expected, respected, and welcomed source of medical assessment and care in people's homes and elsewhere in the community.
- EMS provides highly reliable patient assessment and intervention during calls to 9-1-1 and in response to emergency, urgent or unscheduled episodes of illness or injury.
- EMS, through its multiple service lines, can effectively navigate patients needing urgent or unscheduled care through the health care system to ensure they receive the right care, in the right place, at the right time.
- Through its 24/7/365 health care safety net, EMS' CP services are able to fill gaps in patient care identified by its providers and by others in the community's health care network. EMS can prevent new or recurrent medical episodes through these services. This reduces the incidence of ambulance transports, emergency department visits, hospital admissions and readmissions, preserving medical resources and reducing costs.
- Mobile integrated healthcare is a model in which a variety of community health care providers/agencies organize to deliver a broad spectrum of patient-centered preventive,

primary, specialty, and/or rehabilitative care outside of medical facilities. EMS can support this model by operating an MIH system or by providing CP services for it.

How Does "Community Paramedicine" Differ from "Mobile Integrated Healthcare"?

Community paramedicine and mobile integrated healthcare are both patient-centered, mobile services offered outside of medical facilities. The former is an extension of EMS paramedicine practice and services to cover health care gaps in communities. The latter is an administrative organization of multi-disciplinary medical, nursing, and other practices which may or may not involve EMS paramedicine providers.

Community Paramedicine
The New EMS continues to operate in a system defined by state EMS law that is coordinated and regulated by a state EMS office. Those agencies and personnel who provide EMS' *lines of service* are licensed by that state EMS office.

Community paramedicine is provided as a *service line* by these agencies and personnel.

New EMS agencies may have contracts or other agreements to coordinate/integrate their CP services with other health/medical agencies, facilities, payers, and systems.

EMS personnel typically receive additional education to deliver some CP services. "Community paramedics", "community paramedic technicians", "community paramedic clinicians", "community paramedic practitioners", "community health paramedics", "integrated health paramedics", and certain other designations describe personnel with more extensive, usually college-sponsored, specialty education to provide CP services. These are specialty designations and not additional licensing levels of EMS personnel. In some states, non-EMS health care providers may be certified as community paramedics (or a similar title) and therefore be providers within a CP service. Some CP personnel may operate in MIH, home health, and other agencies as well.

When other personnel operate as part of the community paramedicine service, they are in the control of the EMS agency under the coordination and regulation of the state EMS office. These may include medical dispatchers and non-nurse advice line operators, and the community paramedics and other designations of CP service providers. Others may operate in New EMS CP services in the same way the flight nurses and others operate in EMS agencies.

Mobile Integrated Healthcare
This is a multi-disciplinary, administrative organization of mobile health services which is operated by a health/medical agency, facility, or system. A New EMS service may operate an MIH. This will usually be separate from the operations for which the state EMS office licenses it, because the MIH is an administrative construct of multidisciplinary independent practices over which the EMS office has no authority. It may provide its own CP services in support of that or another MIH system. An MIH system's providers may include doctors, nurses, therapists, dentists, nurse practitioners, physician assistants, dentists, dental assistants and others. New EMS CP personnel may provide clinical, operational or logistical services as a part of MIH.

How EMS Agencies Can Demonstrate Value to Health Care Providers/Agencies and Payers

- Recruit individuals to the EMS organization who understand and embrace the "New EMS value proposition."
- Strengthen competencies in all professional levels within the EMS agency to ensure that it is ready to effectively provide the services that its community needs.
- Embrace continuous quality improvement and strive to adopt "pay for performance/value based purchasing" reimbursement linked to clinical outcomes.
- Utilize all opportunities to discuss how EMS supports the health care transformation.
- Clearly articulate the types of services that EMS can offer to improve patient outcomes and lower costs.
- Advocate for and support college-based education for EMS.
- Assess the potential for a CP program to benefit the community by addressing health care gaps. Assess the potential for that CP program to aid an MIH or other integrated healthcare system.
- If the EMS agency does undertake a CP or MIH service line, use appropriate tools to measure its effectiveness in improving patient outcomes and lowering costs.