

# **The Feasibility and Role of Community Paramedicine in Nebraska**

**Prepared by**

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## **Executive Summary**

Eighty percent of America's landscape is rural area with one fourth of the population living in these areas. Nebraska is no exception. Many people living in rural areas are aging, impoverished, and lacking healthcare services due to vast distances they must travel to medical facilities. Ensuring that all citizens are getting access to primary and preventative care is a challenge. Due to the aging "Baby Boomer" generation, the number of people with healthcare needs is rising. Oftentimes, routine healthcare services, immunizations, and follow-up services are lacking, resulting in what otherwise would have been avoidable acute healthcare needs, including hospitalizations. Nearly 62% of ambulance transports in Nebraska are non-emergent and non-acute. It is commonly known among emergency medical services (EMS) providers that many individuals are utilizing medical transportation services due to a lack of primary care access. Many populations in the state lack adequate healthcare facilities and providers, especially in rural areas. Readmissions to hospitals are common due to patients not following care plans or following up with primary care physicians.

Community Paramedicine is a new healthcare model for a concept that has been in practice well before the Emergency Medical Services (EMS) Development Act in 1973. Traditionally, the primary focus of EMS has been to assess and treat the acute medical and trauma patient while transporting to an emergency department. Through the evolution of EMS, roles have expanded to include inter-facility transport of the non-acute patient, blood pressure checks at local health fairs, transfers to and from routine physician's appointments, as well as providing standby care at community and sporting events. The goal of Community Paramedicine is to fill gaps in healthcare services by identifying the particular needs of a community and developing ways to meet those needs. The means to fulfilling these needs may vary in different areas, as the community paramedic's roles are based on community needs assessments conducted for each community. The intent of this report is to determine the need to further discuss the feasibility and desirability of finding collaborative approaches among a wide range of healthcare provider agencies and professions to potentially make Community Paramedicine in Nebraska a reality."

## **Nebraska's Move in the Direction of Community Paramedicine**

The Nebraska Emergency Medical Services (EMS)/Trauma Program began the process of evaluating the feasibility of implementing a Community Paramedicine program for Nebraska in

2009. Prior to that date, the National Association of State Emergency Medical Officials (NASEMO) and National Organization of State Offices of Rural Health (NOSORH) encouraged state EMS Programs and State Offices of Rural Health to partner in exploring the Community Paramedicine concept. The intent was to relieve the potential healthcare provider shortage, particularly in rural areas, as well as prepare to meet the future demand on the healthcare system with the aging of the Baby Boomer Generation. There have been two public meetings in which experts were invited to present and discuss the pros and cons of Community Paramedicine and review the findings of the Minnesota Community Paramedicine pilot project completed June 2010.

Participants in both community meetings represented nursing, pre-hospital providers, physicians, educators, hospital administration, regional health departments, consumers, physician assistants, nurse practitioners, and other healthcare professions. The participants at the June, 2010 meeting reached a consensus to have the EMS/Trauma Program meet with the Nebraska EMS Board to discuss the next steps in reviewing Community Paramedicine for Nebraska. The participants agreed that pre-hospital care would be the most practical healthcare group to explore the feasibility of implementing Community Paramedicine.

### **Reasons Prompting the Recommendation**

- Nebraska Pre-hospital Providers are licensed and provide care through the oversight of Nebraska licensed physicians.
- Nebraska Pre-hospital Providers are regulated by the Nebraska Department of Health and Human Services and a regulatory advisory board.
- Nebraska Pre-hospital Providers' current scope of practice is vastly similar to the Community Paramedicine recommended scope of practice.
- There is a workforce already established, particularly in rural communities, that is trained and licensed to provide pre-prehospital care and that could be trained as Community Paramedicine Providers.
- Nebraska has an excellent community college and university system that has a long history of providing training to pre-hospital providers and working with the Nebraska EMS/Trauma Program.

- There is a system already in place through the Nebraska EMS/Trauma Program to coordinate continuing education, technical assistance and support to licensed Pre-hospital providers.

The EMS/Trauma Program staff met with the Nebraska EMS Board. The Board recommended the formation of a collaborative group of individuals who could research and review the feasibility and desired outcome of starting a Community Paramedicine program in the state. The Nebraska EMS Board directed the EMS/Trauma Program to work with Shawn Baumgartner, EMS Board Vice Chair in appointing a special committee to review the Community Paramedicine curriculum, pre-hospital statutes, rules and regulations, protocols and scope of practice of Nebraska Pre-hospital Providers. Program staff was asked to compile a report and bring committee recommendations back to the board. The committee met via conference calls and emails. A formal meeting was held on March 25th, 2011. The goals of the committee were to determine desirability and feasibility, as well as highlighting any necessary revisions within the state's current rules and regulations, statutes, and protocols. The committee was also asked to review and comment on several articles, research papers, and the current curriculum that was designed by the Community Healthcare and Emergency Cooperative Curriculum Committee.

### **Members of the Review Committee**

- Julie Smith; RN, BSN MHA Network Director, Rural Nebraska Regional Ambulance Network
- Dale Gibbs; Director of Outreach and Telehealth Services at Good Samaritan Hospital in Kearny, Nebraska, Coordinator for Critical Access Hospitals in Kearney area
- R. Scott Crawford; Paramedic, EMS Instructor, Nebraska Emergency Medical Services Association
- Tom Townsend; Paramedic
- Don Rice; MD, Nebraska EMS Physician Medical Director
- Bill Raynovich; Paramedic, EdD, MPH, Associate Professor and Director of Creighton University EMS Education, Chair of Curriculum Review Committee for Community Healthcare Education Cooperative

- Shawn Baumgartner; Paramedic, Vice Chair for Nebraska EMS Board, Operations Manager Valley Ambulance Service in Scottsbluff, Nebraska
- Heidi Twohig; Home Health RN, Representative from Nebraska Nurses Association
- Linda Jensen; RN Representative for the Nebraska EMS Board, Emergency Department Director/EMS Coordinator at Immanuel Hospital in Omaha, Nebraska
- Robert Dunn; Consumer Representative on Nebraska EMS Board

**Support:**

- Dean Cole; Director, Nebraska EMS/Trauma Program
- Gary Wingrove; Mayo Clinic Ambulance Company; North Central Healthcare Collaborative; International Roundtable on Community Paramedicine Chair, North Central EMS Institute Minnesota
- Carrie Z Crawford; Paramedic, Northeast Nebraska Regional Coordinator, EMS/Trauma Program
- Garry Steele; EMT, EMS Training Coordinator, Nebraska EMS/Trauma Program
- Carol Jorgensen; EMT, North Central Regional Coordinator, Nebraska EMS/Trauma Program
- Sharon Steele; EMT, Western Regional Coordinator, Nebraska EMS/Trauma Program
- Diane Hansmeyer; Administrator, Licensing Division; Executive Director, Nebraska EMS Board

**Committee Members not present at March 25th meeting:**

- Charlie Gregory; Associate Dean-Extended Learning Services at Central Community College, Nebraska
- Jane Ford-Witthoff; Director, Elkhorn Valley District Health Department
- Chad Jay; RN, EMT, Kimball Health Services, Kimball, Nebraska
- Kathy Nordby; Director, Elkhorn Valley Health Department

**The Definition and Role of Community Health Paramedicine**

The paramedic title is used internationally and in this case, is not meant to reflect the current scope of practice of the EMT or Paramedic commonly in use in the United States today.

The distinction in levels in other areas around the world and some parts of the US is oftentimes

defined as; Primary Care Paramedic, Intermediate Care Paramedic, and Advanced Care Paramedic. The Community Paramedic, as intended for use in the US, can be applied to any of these levels and would require additional training that would be determined by the scope of practice in the state and region of practice. It is recommended that the title of Community Paramedicine, when and if adopted in Nebraska, include all levels of licensed pre-hospital care providers.

Community Paramedicine does not generally change the EMS scope of practice for the healthcare provider. An exception would be wound suturing, if this were to be added to the advanced Paramedic scope in Nebraska. Additionally, it is important to note that Community Paramedicine is not intended to be limited to EMS providers, but would include other healthcare professions, such as nursing, physician assistants, social workers, and other allied health professionals. (EMS in its current role allows for nurses to practice their skills up to the scope of practice level of the ambulance service's license.) The Community Paramedic may not write prescriptions or write care plans for patients, but would be required to work under a physician's supervision and liability. The Community Paramedicine model of practice would also open an opportunity for an expanded career path for providers as well.

The working definition of Community Paramedic, per the Joint Committee on Rural Emergency Care (JCREC), is stated as: *"...a state licensed EMS professional that has completed a formal internationally standardized educational program through an accredited college or university and has demonstrated competence in the provision of health education, monitoring and services beyond the roles of traditional emergency care and transport and in conjunction with medical direction. The specific roles and services are determined by community health needs and in collaboration with public health and medical direction."* The intent of community paramedicine is not to take the place of the healthcare services that are already in place, but to fill in the areas of need that were identified in community assessments. Community Paramedicine is not meant to compete with existing healthcare services, but to complement existing services and to work with them in a team approach. This approach has been shown to reduce inappropriate utilization of EMS and Emergency Department services for non emergent care.

### **Some roles may include**

- Encourage responsibility of patient to manage his or her care and treatment

- Educate patient in medication administration to self and in compliance with physician recommendations
- Preventing falls and injuries by completing assessments in the homes and identifying risks
- Provide immunizations and shots
- Work with a healthcare team to follow a care plan for the individual
- Monitor blood pressures and blood glucose levels
- Provide assistance in locating appropriate social service needs
- Treat acute healthcare issues and advise follow up care
- Assist with mobility issues
- Wound care
- Patient education on medication side effects

## **Curriculum**

The development of the current iteration of the Community Paramedicine Curriculum addressed in this report began in 2007. The development of the Curriculum was made possible through collaborative efforts of representatives from Creighton University, Dalhousie University in Nova Scotia, Mayo Clinic in Minnesota, Offutt Airforce Base, the North Central EMS Institute, and State Offices of Rural Health in Minnesota and Nebraska. This curriculum has been distributed to 42 universities, including the U.S., Australia, Great Britain, Israel, and Canada.

The standardized curriculum design is modular based and can be customized for individualized certification or degree programs. There is a core content that the provider must take, with the remaining modules as options to fit in the scope of the community paramedic and the needs of the community. The curriculum offers education in community assessment, access and pathway coordination, access to mental health services, preventative care, chronic disease maintenance management, wellness care, and preventive and maintenance dental care.

## **Background of Community Paramedicine Models**

Community Paramedicine is not new to the United States. Similar programs have already been initiated in the US and around the World:

- Alaska's Community Health Aide Program, has been in practice in remote villages in Alaska since the 1950's, when it was found to be an effective way for village workers to

administer antibiotics to victims of the tuberculosis epidemic. It continued to further meet the healthcare needs of Alaskan Natives and became a federally funded program in 1968. 178 rural villages in Alaska are utilizing Community Paramedics.

- In Texas, MedStar's TX Alternative Destination/Alternative Transport Program is a cooperative of MedStar, the emergency physician's board, and public health. The three primary purposes for the MedStar Community Health paramedic are; (1) Reduce the probability of providing acute emergency medical care for at risk patients and the medically underserved, thereby reducing unnecessary health care expenditures. (2) Increase the outreach activity and public education components of EMS providers and (3) Generation of potential revenue.

<http://www.medstar911.org/Websites/medstar911/Files/Content/1089414/MedStar%20CHP%20detail.pdf>

<http://www.medstar911.org/community-health-program>

- Wake County EMS in Raleigh, NC's program chooses the most experienced providers and utilizes them by serving dual functions; one end that is human services in nature and the other end that deals with high acuity calls such as cardiac arrest. *"Studies show that diabetics, high blood pressure patients with congestive heart failure, those with increased risk of falls (such as people over 65 years of age), some substance abusers, and children with asthma may all significantly benefit by home visits from medical care providers like our Advanced Practice Paramedics."*

<http://www.wakegov.com/ems/staff/app.htm>

- In Minnesota, the Community Paramedic pilot program was funded by the Minnesota Department of Public Health and Office of Rural Health. The first providers were specifically selected from experienced paramedics. As part of their education, each provider conducted a community analysis to define gaps in healthcare, and then designed each service to fit the needs of that specific community. More information can be found at <http://minnesota.publicradio.org/collections/special/columns/ground-level/archive/2011/04/paramedics-take-on-expanded-healthcare-role-in-rural-minnesota.shtml>
- In San Francisco, they deal largely with the homeless population and repeat calls. Their goal is to connect these people with the resources that will ultimately reduce their need to call EMS for transport to emergency departments.

- In 2005, a community health assessment discovered that 46 percent of the people of the Western Eagle County Ambulance District in Eagle, Colorado were uninsured. 38 percent showed difficulty in accessing medical care, and 80 percent of all emergency department visits were for non emergent, non acute issues. The community paramedics in this area are sent by physicians to the patient's homes to focus on preventative care, vaccinations, fall prevention, and blood glucose monitoring. In addition, community paramedics assist individuals in finding the appropriate social service needs and helping to assure a safe home environment with heat, appropriate food, and access to a primary care physician.  
<http://wecadems.com/cp.html>
- Guanajuato, Mexico, developed a program independently in the 1990's that evolved to mirror the Alaskan Community Health Aide Program

## **Special Reports**

**Dr. Bill Raynovich** offered a summary of findings from a 2005 evaluation report of the Red River Project in New Mexico:

The Red River Project began in 1995 and ended in 2000. It was considered to be one of the most progressive and successful expanded practice pilot projects at the time. A comprehensive evaluation that was funded by New Mexico Health and Human Services and approved by the University's Institutional Review Board was conducted by a research team from the University of New Mexico in 2000. The study evaluated patient care, community services, attitudes of members of the local healthcare community, clinical and administrative practices, and regulatory compliance. A number of positive achievements were noted by the researchers. Several significant negative findings reported by the research team resulted in terminating the project, however.

Positive findings in the evaluation of the Red River Expanded EMS Project included overwhelming community satisfaction with not even one negative comment or complaint registered by any resident of the community, care provided to hundreds of patients with no reported patient care complaints, lawsuits, or complications, and overwhelming support by area physicians, nurses and allied healthcare services providers.

Negative findings of the study included underreporting of activities (masked or hidden services provided by untrained providers), standards of care issues per an audit of patient care

records (e.g., lack of tetanus documentation or compliance with standards and less than ideal clinical procedures), non-compliance with prescribing standards (e.g., antibiotics dispensed in a single dose with 90% of patients having no follow up), no continuing education standards, activities or documentation, and inadequate medical oversight and coordination of services with the area healthcare providers. The most important finding was that the program had become competitive with local healthcare providers rather than a gap filling service, as was originally intended.

The main recommendation of the research findings were that expanded EMS services could operate effectively to fill gaps in essential healthcare services but that close medical supervision and support and coordination with existing healthcare provider services was essential for long term success.

**Gary Wingrove** offered some mathematical statistics on the possible financial outcomes of implementing a Community Paramedicine program:

- Reduce or eliminate a one day length of stay observation for six patients per week for one month:

$$\text{One Day} \times \$5,217 \text{ bed cost} \times 6 \text{ patients} \times 4 \text{ weeks} = \$125,217$$

- Reduce clinic costs for minor follow up procedures of ten patients per week for one month:

$$\text{Ten patients} \times \$60.00 \text{ clinic cost} \times 4 \text{ weeks} = \$2,400$$

- Reduce the cost of ambulance transport to a hospital for routine follow-up of eight patients a week for one month:

$$8 \text{ patients} \times \$415 \text{ ambulance cost} \times 4 \text{ weeks} = \$13,280$$

- Prevent one in home fall related injury per month:

$$\text{Four day length of stay} \times \$5,217 + \$5,000 \text{ rehab and home support cost per case} + \text{clinic fee } \$560.00 + \text{ambulance fee } \$26,343$$

The potential downstream costs savings to the healthcare system per month would equate to \$167,240.00.

## **Committee Discussion**

The committee members brainstormed possible benefits and pitfalls to implementing a Community Paramedicine program in Nebraska:

### **Negatives**

- Perceived decrease in quality of care in order to cut costs.
- Could be perceived as a possible increase in workload for EMS providers.
- Would there be additional visits to the ED later due to complications from the original complaint?
- How will the program be funded?
- Concerns that Community Paramedicine would compete with other healthcare organizations already in place.
- Constancy is needed in the message of how Community Paramedicine can benefit Nebraska.
- Too many misconceptions in the public and healthcare field about Community Paramedicine; Better Education about the program needs to be implemented to provide awareness and clarity for the public and healthcare community.
- Possible lack of quality medical direction and supervision.

### **Positives**

- The team approach of working with a multi disciplinary healthcare field.
- The ability to fill in gaps in the community.
- EMS may be better informed on individual patient care and ability to tap into the patients needs.
- Improve field screening capabilities-referring patients that don't need emergency care to the appropriate facility.
- May help retention of EMS personnel due to overwork and lack of burnout.
- Greater opportunity for EMS to become an integrated part of the healthcare continuum
- Decrease hospital readmissions.
- Decrease emergency department visit for non acute events.
- Decrease unnecessary costs.
- Clinical gaps in services will be filled.
- Economic efficiencies in the overall healthcare system.
- Patient safety would be assured by better regulatory oversight.

- Additional career opportunities will be provided.
- Quality assurance will be monitored by a physician medical director.
- Improved quality of life for the patient.
- Community Paramedicine offers a holistic approach to care in the field.
- Continuity of patients' electronic care records can be maintained in conjunction with the healthcare team.
- Care is provided in the home and offers alternatives to ED wait times.
- Treat and refer/release will result in cost savings to patient.
- A new level of professionalism to EMS providers would be available.
- Behavioral health patients would have assistance after hours.
- Offer mental health support to individuals that would otherwise call 911.
- EMS could get paid for services that they already are doing but not getting paid for due to non-transport.
- Community Paramedicine would involve mapping of the community and discovering needs that would otherwise go unnoticed.

The option of moving ahead with Community Paramedicine in Nebraska was presented to the committee for consideration. The committee suggested the following recommendations for the EMS Board to consider if it is the desire to move forward with the program:

### **Recommendations**

Changes will need to be made to pre-hospital statutes, protocols, rules and regulations before the program could be implemented in Nebraska.

- Statute would need to be modified to allow the EMS board the authority to oversee the new certification.
- Change in Nebraska definition to strike the work "immediate" from the current statute.
- Determine in statutes stating where the Community Paramedicine can practice. Currently paramedics can only practice in a clinical setting or prehospital as a member of a service. This needs to be clarified for all levels.
- The skill sets of Community Paramedicine will need to be clearly defined.
- Working definition as written does not include other healthcare professions. This will need to be addressed.

- Examine the curriculum and further define how it is to be followed and what the minimum core content should include with the expectation that additional modules will be completed to fit the needs of the local communities' specific needs.
- The EMS Program and/or a select group is recommended to develop a program to educate the public, hospitals, and healthcare providers about Community Paramedicine and its potential role in providing patient care outside of an emergency setting.
- Research needs to be looked at to determine the potential financial impact on rural physicians.
- Avenues of funding will need to be looked at.

## **Conclusion**

The general consensus of the Community Health Paramedicine Committee is to move forward with presenting a report to the EMS Board for review. The group voted with 10 in favor of moving ahead. One member abstained from the vote with the intention of taking the information back to her governing board for consideration. The committee will follow the recommendations and advice of the board in determining the next steps in implementing Community Paramedicine in Nebraska.

## **Endnote**

Subsequent to the March 25, 2011, Nebraska meeting, the State of Minnesota passed a Community Paramedicine practice act. The website to the legislation:

[http://www.house.leg.state.mn.us/sessionweekly/art.asp?ls\\_year=87&issueid\\_ =78&storyid=2507&year\\_ =2011](http://www.house.leg.state.mn.us/sessionweekly/art.asp?ls_year=87&issueid_ =78&storyid=2507&year_ =2011)

Two separate Community Paramedicine training sessions are scheduled for Minnesota providers. The first will begin May 25, 2011. The second will begin in September, 2011. A special committee will be appointed by the Minnesota Department of Human Services, Medicaid Program in the near future. This committee will study Medicaid cost and payment structure for the Minnesota Community Paramedicine Program.

*Other links of interest:*

<http://www.ircp.info/>

<http://communityparamedic.org/>