Case Study

Paramedicine program strengthens rural health care system

Abstract

More than a third of all Nebraskans live in rural areas. Rural populations tend to be older and have limited access to local health care services. Lack of access to care and transportation often lead to costly and unnecessary ambulance services.

In May 2015, representatives from the hospital, primary care clinic and fire department in rural McCook, Neb., gathered to discuss Community Paramedicine, a population health initiative gaining steam across the country. Their goal: enhance patient care in ways that reduce ambulance transports, emergency room visits and hospital readmissions. Less than a year later, the McCook Community Paramedicine program was up and running.

Launched in January 2016, the program expands the role of paramedics to provide free health services and safety assessments to recently hospitalized patients after they return home. Funded through a grant from Community Hospital Health Foundation, the program served the health needs of more than 30 individuals within its first year and a half.

Opportunity

McCook (pop. 7,526) is a rural community located in southwest Nebraska. In 2015, leaders of McCook’s Community Hospital, which serves approximately 30,000 people in McCook and surrounding areas, saw an opportunity to partner with the local fire department and primary care clinic on a population health initiative called Community Paramedicine. In the program, paramedics visit the homes of select patients identified through a screening process and practitioner referral.

The program aims to ensure patients receive the most appropriate level of care, and to decrease costs by reducing emergency transports, emergency room visits and hospital readmissions. There is no charge to the patient, and the partnering organizations need no additional staff, as the paramedics are on duty when making the visits.
The Community Paramedicine program seeks to:

- Improve safe care transitions upon a patient’s return home
- Minimize medical crises through pre-emergent care
- Improve overall health, knowledge and compliance of program participants within their own homes
- Increase trust in the local health care system
- Decrease the overall cost of care by reducing EMS transports, ER visits, and readmissions

“We can proactively meet the needs of patients in the program by focusing on health and safety in the home.”

― Marc Harpham, NREMT-P, Fire Chief, City of McCook Fire Department

The Community Paramedicine program seeks to:

- Improve safe care transitions upon a patient’s return home
- Minimize medical crises through pre-emergent care
- Improve overall health, knowledge and compliance of program participants within their own homes
- Increase trust in the local health care system
- Decrease the overall cost of care by reducing EMS transports, ER visits, and readmissions

**Partnership Approach**

Representatives from Community Hospital, City of McCook Fire Department and McCook Clinic PC jointly created a vision for the program and identified key objectives.

Any of the three partner entities can identify and recommend patients for the Community Paramedicine program. With patient consent and a physician referral, the process begins with the referring partner completing a screening form that collects information about the patient’s health conditions, past admissions and ER visits, social support, medication, and safety in the home (including risk or occurrence of falls), as well as economic, socioeconomic and psychosocial factors, and the patient’s ability to follow a plan of care.

From there, paramedics typically make one visit per week for four weeks, focusing on home safety, medication compliance and discharge plan of care. The paramedic completes a patient care report and shares it with the hospital and the patient’s family physician. A social worker makes a follow-up call to the patient after the four visits are complete to help determine areas for improvement. The program is funded by a $10,000 grant from Community Hospital Health Foundation to cover mileage, supplies and incidentals.

---

“"We can proactively meet the needs of patients in the program by focusing on health and safety in the home.””

― Marc Harpham, NREMT-P, Fire Chief, City of McCook Fire Department

**Key Steps**

- May 2015 – Representatives from Community Hospital, City of McCook Fire Department and McCook Clinic PC begin meeting to discuss Community Paramedicine as a potential community health opportunity.
- June-August 2015 – Team collaborates on research, develops a vision, and brainstorms to identify community gaps that could be met by paramedicine program.
- September 2015 – Team jointly agrees on program vision, objectives and process.
- October 2015 – Team finalizes development of tools and forms, including screening tool for program involvement, consent and acknowledgment, home safety assessment and patient pamphlet.
- November 2015 – Community Hospital Health Foundation approves seed funding for program and provides first $5,000 installment.
- November 2015 – Community Hospital develops Memorandum of Understanding (MOU) in conjunction with the City of McCook Fire Department and McCook Clinic PC.
November-December 2015 – City of McCook Fire Department establishes policies and procedures for program in accordance with paramedic scope of responsibilities; receives approval from head of Nebraska State EMS Board.

December 2015 – City Council approves MOU.

January 2016 – McCook Community Paramedicine program launches.

February 2017 – Three paramedics attend national EMS conference, bring back knowledge to improve program.

May 2017 – Community Hospital Health Foundation provides second $5,000 installment.

Ongoing – Team meets to evaluate and modify the process and referral pathways as needed.

Results

The McCook Community Paramedicine program served 30 patients in 2016 and early 2017. At an average cost of less than $85 per visit (paid for entirely by the Foundation grant), the program has enabled paramedics to check and install smoke alarms and grab bars in patients’ homes, identify trip hazards, and assist patients with activities of daily living. It also enables them to identify patients whose needs can be best met with nursing home or assisted living care.

To quantify outcomes, the team plans to measure readmission rates of Community Paramedicine patients and compare them to overall readmission rates. They are also considering taking steps to increase the number of patients enrolled in the program as needed.

Lessons Learned

Engage: Involve key players and physicians from the start for effective collaboration, and keep everyone updated on program development progress.

Evaluate and improve: Re-evaluation along the way is imperative. Look not only at results, but also the process. Be open to change.

Adapt: The team developed the original screening tool with the purpose of “scoring” the patient based on need. Although scoring proved ineffective, the team found the tool to be helpful in documenting information for paramedics.

Community Partners

Community Hospital is a critical access facility located in McCook, Neb. Serving a population of more than 30,000 people throughout southwest Nebraska and northwest Kansas, the hospital offers surgery care, rehabilitation programs, obstetrics, emergency care, radiation and outpatient medical oncology, an outpatient infusion center, and a wide range of visiting specialists.

Community Hospital Health Foundation engages the philanthropic community by providing donors with opportunities to remain actively involved in the ongoing success of the hospital and improved quality of life throughout the region.

The City of McCook Fire Department serves the town of McCook, Neb., providing EMS services to an area covering approximately 320 square miles. The department consists of a fire chief, eight full-time firefighters/paramedics, an administrative professional and 24 volunteer firefighters/EMS providers, including several paramedics.

McCook Clinic PC is a certified Patient Centered Medical Home in McCook, Neb. Its team of doctors, physician assistants and other care providers offer primary care for all ages.

About Bryan Health

Bryan Health is a Nebraska-governed, nonprofit health system that cares for patients, educates tomorrow’s health care providers, motivates our community with fitness and health programs, and collaborates to continually improve how we serve others.

Contacts

Carol A. Friesen, MPH, FHFMA
VP Health System Services
Bryan Health

Julie Wilhelmson, RN, BSN
Director of Emergency and Mother/Baby Services
Community Hospital

Misti Soderlund, RN, BSN
Director of Inpatient Services
Community Hospital

Becky Mai, CSW
Social Services Director
Community Hospital

Marc Harpham, NREMT-P
Fire Chief
City of McCook Fire Department