University/REMSA partnership reduces costs for emergency services

When REMSA was developing its implementation plan for a new concept in patient care and transport, it turned to the School of Community Health Sciences at the University of Nevada, Reno to help measure and validate the impact of these highly creative health delivery changes.

“We received a $9.8 million three-year Affordable Care Act grant through the Center for Medicare and Medicaid Innovation that began in July 2012 and immediately turned to the University as an essential partner to develop the tools to evaluate the data we are producing,” said Brenda Staffan, director, Community Health Programs for REMSA.

Funded by the Health Care Innovation Award grant, REMSA implemented three programs with the goal of reducing emergency department visits at local hospitals by giving patients and REMSA employees options for treatment other than an automatic trip to the ER.

Staffan credits Trudy Larson director of the School of Community Health Sciences, as being the visionary behind the concept that the University could provide its input and expertise to REMSA to help meet the grant’s goals. She added that professor Wei Yang ’94, (nutrition) ’97 Ph.D. (environmental science and health) and graduate student Chris Dugan were both instrumental in producing statistical and procedural assessments for each of the three programs.

“We knew Doctors Larson and Yang had knowledge about how the community’s health care delivery systems could be improved if emergency medical services were more integrated,” Staffan said.

For her part, Larson said the partnership is truly innovative because “no one was looking at comprehensive changes in emergency medical services as a way to address the issue of reducing emergency room visits.”

“The innovation of the grant is in looking upstream from the emergency department, to what can be done before the patient arrives at the hospital, to reduce those ER visits,” Larson explained.
Nurse Health Line
The first program, the Nurse Health Line, is available community-wide, 24/7 and can help answer medical and health questions about symptoms, medications, allergies or other conditions. After assessing the patients’ medical needs through a series of questions, the specially trained nurses recommend the most appropriate level of care or services.

The nurses can help callers find other resources in the community including clinics, community service agencies and assistance programs.

Ambulance Transport Alternatives
REMSA’s Ambulance Transport Alternatives program provides pathways of care other than transport to the emergency department for 9-1-1 patients. This includes transport of patients with low acuity medical conditions to urgent care centers and clinics for treatment, the transport of medically stable inebriated patients directly to the Community Triage Center for detoxification, and the transport of medically stable psychiatric patients directly to a facility for medical clearance and admission.

The program features medical director oversight, additional training for paramedics and EMTs, specific protocols for low acuity, intoxicated and psychiatric patients and includes a rigorous quality assurance/quality improvement process.

The core element is an early destination evaluation—an advanced assessment performed in the field to determine if a 9-1-1 patient could be treated at an alternative medical facility. The medic conducts the advanced assessment in the field to first confirm that no priority symptoms exist that require treatments that can only be performed in an emergency department. The medic then explains to the patient that their medical condition may be appropriately treated at an alternative care location. The selection of a location will depend upon several factors including insurance accepted, facility hours, facility capability and capacity, and nearest appropriate location. Within clinical triage and destination guidelines, patient choice and consent will always be the final determinant.

Community Paramedicine
The final program, Community Paramedicine, utilizes a group of experienced paramedics who are specially trained to perform tasks assigned and coordinated by primary care physicians, cardiologists, case managers, discharge planners, and other health care providers to enhance each patient’s adherence to their care plan upon release from the hospital. The goal is avoidance of exacerbations of chronic illness through close observation and early reporting of symptoms, monitoring and trending of vital signs, weight, medications, and appointments and assisting patients with locating appropriate community resources among others.

Measuring outcomes
“We knew the team from the University could add invaluable contributions about health care policy, the needs of patients and health data, all of which helped as we fine-tuned these programs,” Staffan said.

The grant’s measurement strategy, referred to as the “triple aim,” sought to improve the quality and experience of care for the patient, improve the health of the overall population and reduce costs. The faculty at the School of Community Health Sciences helped to develop appropriate measures to define the success of these three programs under the triple aim.

Specifically, Staffan said Larson, Yang and Dugan offered technical support and access to data services, analysis of health data from underserved populations, assistance in the community paramedicine curriculum design and evaluation, and development and review of grant-related reports and measures.

“Their development of a methodology of cost savings was a significant contribution,” Staffan said. “It was a perfect fit with us and we are grateful for the University’s contributions.”

Preliminary outcomes indicate significant savings as a result of implementing these three innovative programs.

The estimated expenditure savings (as of Dec. 2014) totals more than $5.5 million based upon 3,203 emergency department visits avoided, 609 ambulance transports avoided and 52 hospital readmissions avoided. These preliminary outcomes are estimates showing progress in achieving overall program aims.

Staffan said the three interventions, developed in collaboration with the School of Community Health Sciences and other partners, have been so successful in increasing patient satisfaction and reducing costs, that REMSA has been awarded an extension of its grant so that the cost savings can make the programs completely self-sustaining in the near future.