

JOHN T. VUCUREVICH FOUNDATION GRANT APPLICATION

PROGRAM AND ORGANIZATION INFORMATION:

1. Agency Information: Five (5) Copies and the Original required

- a) Legal name, address and telephone number of the organization and the name and address of the contact person as well as the name(s) and qualifications of the person(s) who would administer the grant as well as the names and primary professional affiliations of the organization's directors or trustees.**

Organization: Rapid City Fire Department; (605) 394-4180

Contact person/Grant Administrator: Jason Culberson, RCFD EMS Chief
10 Main Street, Rapid City, SD 57701.

Chief Culberson has more than 20 years of experience as a paramedic in Western South Dakota. His paramedic experience includes traditional ground ambulance transport as well as 14 years as a Flight Paramedic and five years in the emergency room. Chief Culberson has six years administrative experience as Program Director for Black Hills Lifeflight and has served as Emergency Medical Services (EMS) Operations Chief with the Rapid City Fire Department (RCFD) for the past three years. Chief Culberson will serve as the Rapid City Community Paramedic Program Administrator. He has the experience and expertise to carry out the proposed program successfully and manage the grant award responsibly.

Board of Directors: Please see Attachment 4a for a complete list of City Council members and their affiliations

- b) A brief description of the organization, including its goals, purposes, short history, and if appropriate any recent organizational changes.**

Founded in 1886, the Rapid City Fire Department (RCFD) is a progressive fire department and ambulance service that encompasses a 3,200 square mile area with a population of approximately 100,000 people. RCFD provides Advanced Life Support ambulance transport services for the City of Rapid City, Pennington County, and portions of Custer, Meade and Lawrence counties. We respond to approximately 14,000 calls per year and have 137 dedicated staff members. Our mission is three simple words; Prepare, Prevent, Protect. RCFD primarily focuses its efforts on public education, fire prevention initiatives, preparedness, and overall community risk reduction. Should these efforts fail, we are ready, prepared, and trained to respond to a wide variety of calls for service.

- c) Description of current program, including best practice models, if applicable, activities, and accomplishments. Please highlight any new or different activities.**

In 2013, RCFD celebrated 10 years of providing ambulance transport services. RCFD has been the recipient of both state and private foundation grants. Examples of these grants

include: Assistance to Firefighter Grant, Bureau of Land Management Wildfire grant, Community Assistance Veterans Program, Department of Homeland Security, American Heart Association Mission Lifeline, private grants through the Black Hills Community Foundation, and the State of South Dakota Regional Response annual grant.

RCFD serves both urban and rural locations and has all the issues of a large city urban ambulance as well as the difficulties of a rural ambulance with long transport times. RCFD's pre-hospital care has been focused on providing transport services of the sick and injured as well as standby event services.

d) Your organization's relationship with other organizations working with similar missions. How does your organization collaborate with these organizations?

As part of Western South Dakota's healthcare community, RCFD has developed strong, collaborative relationships with area ambulance services, hospitals, fire departments and health care facilities. RCFD provides educational opportunities to the community as well as to area law enforcement and volunteer fire/ambulance services. Currently, Sturgis Fire Department and RCFD are collaborating on a joint patient care reporting program that will provide consistent and cost effective reporting for both parties. RCFD has automatic mutual aid agreements with all the surrounding Fire Departments and ambulance services.

2. Purpose of Grant: Five (5) Copies and the Original required

a) Specific purpose for which you seek funding.

The Rapid City Fire Department (RCFD) is requesting funding from the John T. Vucurevich Foundation to implement the Rapid City Community Paramedic (RCCP) program. The purpose of the RCCP program is to improve the health and wellness of medically vulnerable populations within our community. This innovative program will help reduce the use of unnecessary ambulance transports and emergency department visits for non-emergent care and help direct patients to the appropriate level of follow-up care. The proposed program aligns with the priorities of the John T. Vucurevich Foundation by increasing access to affordable healthcare and improving access to basic human needs.

In 2010, RCFD began examining our emergency services delivery model to find a way to be more proactive in the overall healthcare of the community we serve. A high volume of the emergency medical service (EMS) calls we receive are not true emergencies, but are more often related to social service or home health issues. We also respond to a significant number of patients who are non-adherent with their medications or who wait an excessive amount of time before seeking needed medical attention. A high number of service calls are received from patients that have been recently discharged from the hospital that did not understand or follow their discharge instructions or were at a higher risk for complications. Many of these patients end up being readmitted to the hospital.

Community Paramedic programs have shown success in other communities to address many of the issues highlighted above. During 2011 and 2012, RCFD staff researched Community Paramedic Programs conducted in other locations across the country to determine if this type of program would translate well to the Rapid City area. In January 2013, our staff met with personnel from Rapid City Regional Hospital to discuss the potential creation of a Rapid City Community Paramedic Program. Since that initial meeting, discussions have been held with various community agencies to determine support for this type of program including: Black Hills Community Health Center, Pennington County Health and Human Services, Veterans Administration, Pennington County Sheriff's Office, Behavior Management Systems, and the Crisis Care Center. RCFD is working collaboratively with these agencies to determine how the Community Paramedic program can fill healthcare gaps and achieve positive outcomes that will increase the health and wellness of the community we serve.

RCFD has the support of the City of Rapid City and Pennington County in addition to other community stakeholders that provide many different levels of assistance to ensure the success of this worthy program. All of these agencies favor the creation of a Community Paramedic program in Rapid City. We will continue to involve stakeholder organizations to effectively tailor this proven program model to fit the needs of our community.

b) The opportunity, challenges, issues or need currently facing your organization.

Our community faces a major challenge with patients who frequently use the emergency 911 system and the emergency department (ED) for non-emergent, primary care needs. A very high percentage of patients served are uninsured or enrolled with Medicare or Medicaid. We frequently visit patients that do not have an emergent need for transport to the ED, but currently have no other response options.

We also respond to many calls that are better served by primary care physicians in a medical clinic such as the Community Health Center. An example of this is the 2:00 a.m. 911 from a mother for a sick child. Upon arrival, the crew finds the child in no respiratory distress, lung sounds are mild crackles with no accessory muscle usage with a non-productive cough. The mother relays that the child has been ill for 3 days and has a cough that is not getting any better. She reports that her child has not received any outside care for the illness and she would like him to be evaluated. Currently, the only recourse the ambulance crew has is to transport the child to the Rapid City Regional Hospital ED. Emergency personnel in our community spend a high proportion of their time responding to a small group of individuals whose cases are often low-acuity or non-emergent. Some examples of these requests in the past 12 months include calls for earaches, hang nails, anxiety, sore throats, toothaches, and inability to sleep. These calls are handled by an ambulance with a Paramedic and EMT that then become unavailable to respond if there is a true emergency.

The RCCP program will help decrease utilization of emergency resources and redirect these patients to more appropriate care. Four Emergency Medical Technicians from RCFD's EMS team will undergo specialized training to become Community Paramedics (CPs). The

program will be staffed by a Lead CP, with a second CP starting in month six of year one. The two additional trained CPs will provide shift coverage as needed.

These CPs will visit patients in their homes and provide care that is within their legal scope of practice. The program will not provide ongoing care or be used in place of other ongoing services, such as Home Health. Instead, the program will help address a gap by providing care to a sector of patients that are not being currently serviced.

High risk patients that are chronically ill and/or miss appointments will also benefit from this program. Physicians will identify these patients and send a Community Paramedic to assess the chief complaint, take a history and vitals, and confer with the physician on the next steps. This will assist primary care providers with patients that are in need of social support services and who frequently call 911 to access the ED for their primary healthcare.

c) Description of constituency served (include number served); target population; how will they benefit?

RCCFD serves a population of 100,000 community members and responds to approximately 14,000 calls for service each year. A very small group of people in the Rapid City area utilize a disproportionate amount of emergency services. This overutilization can cause vital services to be unavailable for people experiencing true emergencies and drive higher costs for all community organizations involved. The RCCP program will target patients living in Rapid City (zip codes 57701 to 57709) with five or more EMS calls for service, and/or five or more emergency department (ED) visits within a twelve-month period.

In Fiscal Year 2013, RCCFD had 134 patients that met the defined target criteria and accounted for 985 calls for service. One individual utilized the ambulance service 32 times in a twelve month period. In Fiscal Year 2013, Rapid City Regional Hospital's (RCRH) ED had 549 patients that met the target criteria and accounted for 3,898 visits. During this period, one patient visited the ED 36 times.

The RCCP program will help divert non-emergent care away from the ED and ambulance service and redirect patients to an appropriate level of care. This will be accomplished during a home visit by identifying patients that are not receiving primary care and directing them to where they can get those needed services. One of the roles of the CP will be to help link people to appropriate community resources, such as social service and mental and behavioral health service agencies. The CP will work with staff from RCRH's Care Transitions Clinic to help address gaps in primary care and improve care coordination efforts for patients transitioning from hospital to home. Local providers will also be able to request that the CP conduct a home visit for their patients and clients. In turn, this will provide better continuity of care for the patients that need it most.

A representative from the RCCP program will attend the Crisis Care Center Direct Services Meetings which occur every two weeks. This will allow program staff to assist in identifying patients that could potentially benefit from a visit from the community paramedic for a medical condition. The relationship with all of the social services agencies will enhance

support for the medically vulnerable people in our community and will continue to promote efficient use of community resources.

d) Description of goals and objectives for the purpose of this grant.

The RCCP program is designed to decrease emergency services utilization for non-emergent care and reduce healthcare costs. In our community, a very small group of patients accounts for a very high percentage of overutilization of emergency department visits and healthcare resources. These patients often suffer from multiple chronic medical conditions, mental health and substance abuse issues, and are susceptible to higher mortality rates.

The ultimate goal of the Rapid City Community Paramedic (RCCP) program is to improve the health and wellness of medically vulnerable populations in our community. The following objectives will be used to determine the overall success of the program:

- At the end of the two-year grant period, EMS calls for service from the target population will be reduced by 20% (788) as compared to a one-year period prior to program implementation (985).
- At the end of the two-year grant period, ED visits from the target population will be reduced by 15% (3,313) as compared to a one-year period prior to program implementation (3,898).

The baseline measures for these objectives are discussed in detail in the evaluation section.

Using the RCFD's electronic patient care reporting system, RCCP program staff will document and track patients that are assessed and could benefit from this type of program. We will track patient demographic information, services requested, patient diagnosis, referring physician, time and date of call, chief complaint, outcomes, and referrals to other services by a CP.

RCFD will also document and track all patients that use the pre-hospital transport system greater than 5 times and compare pre and post program implementation numbers. Information from the database will be used to quantify program outcomes such as a change in the level of ambulance transports and emergency department visits. Through these we will be able to identify health care savings. Client and provider satisfaction surveys will also be developed and used to gather feedback on the effectiveness of the program and gauge provider and community support. An RCCP Advisory Board, comprised of community stakeholders, will be created and meet on a regular basis to help guide the development of the program and identify and address any issues that may arise. A representative from Regional Health will serve as a liaison to the program and track ED data and assist with evaluation support.

e) Description of activities planned to accomplish these goals; is this a new or ongoing activity on the part of the sponsoring organization?

The Rapid City Community Paramedic (RCCP) program is a new activity that will be conducted by the RCFD EMS to accomplish the goals outlined in the table below.

Goal: To improve the health and wellness of medically vulnerable populations in the community served by the Rapid City Fire Department (RCFD).		
Activities:		Responsible Party:
Conduct the Rapid City Community Paramedic (RCCP) Program		Rapid City Fire Department (RCFD)
Objectives:	Activities:	Staff Responsible:
At the end of the two-year grant period, EMS calls for service from the target population will be reduced by 20% (788) as compared to a one-year period prior to program implementation (985).	Develop EMS protocols for program	Lead CP, Advisory Board
	Educate and market RCCP program to stakeholders	RCCP Program Administrator, Lead CP
	Conduct EMS data tracking	RCCP Program Administrator, Lead CP
	Evaluate collected data	Advisory Board, RCCP Program Administrator, Lead CP
	Report program findings to the Vucurevich Foundation and City Council	RCCP Program Administrator
At the end of the two-year grant period, ED visits from the target population will be reduced by 15% (3,313) as compared to a one-year period prior to program implementation (3,898).	Develop ED protocols for program	Lead CP, Advisory Board, Regional Health (RH) Liaison
	Educate and market RCCP program to stakeholders	RCCP Program Administrator, Lead CP, RH Liaison
	Conduct ED data tracking	RCCP Program Administrator, Lead CP, RH Liaison
	Evaluate collected data	Advisory Board, RCCP Program Administrator, Lead CP
	Report program findings to the Vucurevich Foundation, City Council, and RCRH Leadership	RCCP Program Administrator, RH Liaison

f) Timetable for implementation.

The table below outlines the work plan and timeline for the RCCP program implementation.

Project Activity – Year One	Time Frame (Months)	Responsible Party
Formalize Advisory Board	1 – 2	RCCP Program Administrator, Regional Health (RH) Liaison
Hire Lead Community Paramedic (CP)	1	RCCP Program Administrator
Identify additional CP candidates	1	RCCP Program Administrator
CP Training	1 – 6	RCCP Program Administrator
Program Planning	1 – 6	Advisory Board, Program Administrator, Lead CP, RH Liaison
Develop Communication and Education plan	1 – 6	RCCP Program Administrator, Advisory Board, Lead CP, RH Liaison
Attend Crisis Care Center Direct Services Meetings	1 – 12	Lead CP
Send quarterly meeting minutes to the Black Hills Human Services Collaborative	1, 5, 9, 12	RCCP Program Administrator
Hire 2 nd CP	6	RCCP Program Administrator, Lead CP
CPs (2) begin seeing patients	6 – 12	RCCP Program Administrator, Advisory Board
Data Collection	6 – 12	Lead CP, RH Liaison
Formative evaluation	7 – 12	Advisory Board, RCCP Program Administrator
Send annual report to JTVF, share findings with City Council and RCRH leadership	12	RCCP Program Administrator, Advisory Board, RH Liaison
Project Activity – Year Two	Time Frame (Months)	Responsible Party
CPs see patients	1 – 12	RCCP Program Administrator, Advisory Board
Data Collection	1 – 12	Lead CP, RH Liaison
Attend Crisis Care Center Direct Services Meetings	1 – 12	Lead CP
Send quarterly meeting minutes to the Black Hills Human Services Collaborative	1, 5, 9, 12	RCCP Program Administrator
Summative evaluation	12	RCCP Program Administrator, Advisory Board
Send annual report to JTVF, share findings with City Council and RCRH leadership	12	RCCP Program Administrator, Advisory Board, RH Liaison

g) How the proposed project will benefit the community in which it will occur. What is the community need for this project?

The proposed program will benefit the community by increasing the availability of emergency services and personnel for true emergencies by directing the target population to the appropriate level of care, increasing their access to needed health care and social services.

The need for this type of program is evident when looking at the ratio of patients to emergency service utilization. As mentioned previously, in FY13 RCFD experienced 985 calls for service from 134 individuals. RCRH's ED also has a high volume of visits from a small percentage of its patients; 549 patients accounted for 3,898 visits in FY13.

This program will enhance the support for the medically vulnerable people in our community and will continue to promote efficient use of community resources. By increasing access to care for our medically vulnerable populations it will result in improved health outcomes.

h) Other organizations, if any, collaborating in the activity. If so, describe.

RCFD has been collaborating with Rapid City Regional Hospital to develop the RCCP program since early 2013. RCFD has also met with the following community organizations to discuss the RCCP program and identify potential partners: Community Health Center, Pennington County Health and Human Services, Veterans Administration, Behavior Management Systems, and the Crisis Care Center. In September, Chief Culberson and two representatives from RCRH gave a presentation on the RCCP program concept to the Black Hills Human Services Collaborative Steering Committee whose members include: Rita Haxton, Tim Trithart, Karen Romey, Jim Castleberry, Don Holloway, Alan Solano, Chief Allender, Sheriff Thom, and Sandy Diegel. This group provided feedback that has been incorporated as part of the continuing development of the program.

i) Long-term/sources/strategies for funding at end of grant period.

The ultimate goal for program sustainability is to work with those at the state level to create legislation that would reimburse for services offered through the program, thereby allowing it to become self-sufficient. Legislation for Community Paramedic service reimbursement was recently passed in Minnesota, one of the pioneering states for this type of program. Program staff will also reach out to private payers to discuss cost savings and potential payment models. The other goal is to demonstrate cost savings to the RCFD, which will allow for future program development and sustainability.

1. Evaluation: Five (5) Copies and the Original required

a) What do you want to happen as a result of your activities, both immediate and long-term?

The primary goal of the RCCP program is to improve the health of medically vulnerable populations in the community served by the RCFD. The program will collaborate with local community providers and agencies to increase access to needed health and social services for patients and clients in the Rapid City area.

One of the anticipated long-term results of RCCP program is reduced burnout and turnover of Emergency Medical staff. Emergency personnel in our community spend a high proportion of their time responding to a small group of individuals whose cases are often low-acuity or non-emergent. The RCCP program will help increase satisfaction among EMS and ED staff by diverting these patients to the appropriate level of care.

b) How will you measure these changes?

In order to measure the impact of the RCCP program, formative and summative evaluations will be conducted. In the summative evaluation, the degree to which the established objectives are attained will determine the overall success of this program.

Formative Evaluation

The formative evaluation will be conducted in year one to measure progress towards meeting the established objectives and help guide continued program development. After six months of the RCCP program being available to the community, the RCCP Program Administrator, Lead Community Paramedic, and the Advisory Board will analyze the program's performance to determine if all of the objectives are on track to being met. Any issues identified during the formative evaluation will be addressed and intervention strategies will be implemented if necessary.

Summative Evaluation

At the end of the two year grant period, a summative evaluation will be used to determine the overall success of the RCCP program based on the degree to which the objectives have been met. Each objective statement is repeated below, followed by a description of the process for the summative evaluation for that objective.

Objective 1: At the end of the two-year grant period, EMS calls for service from the target population will be reduced by 20% as compared to a one-year period prior to program implementation.

Evaluation of Objective 1: The number of EMS calls for service from the target population will be tracked as part of the summative evaluation. The baseline measure for this objective is the call volume established in FY13 by the program's target population. In FY13, there were 134

patients who met the target criteria (five or more calls for service in a twelve-month period). These patients generated 985 calls for service. Objective 1 will be attained if, by the end of the two-year grant period, the calls for service have been reduced by 20% (n=197).

Objective 2: At the end of the two-year grant period, ED visits from the target population will be reduced by 15% as compared to a one-year period prior to program implementation.

Evaluation of Objective 2: The number of ED visits generated by the target population will be tracked as part of the summative evaluation. The baseline measure for this objective is the number of RCRH ED visits generated by the defined target population in FY13 (five or more ED visits in a twelve-month period). During this period, there were 549 patients who met the target criteria and accounted for 3,898 ED visits. Objective 2 will be attained if, by the end of the two-year grant period, ED visits have been reduced by 15% (n=585).

c) How will project's results be used?

Results from the RCCP program will be used to identify barriers and solutions to accessing health care and social services in the Rapid City community for medically vulnerable patients. The results of the evaluation will be shared with the John T. Vucurevich Foundation, the Black Hills Human Service Collaborative, RCFD, RCRH, the City of Rapid City Council, and any other community organizations interested. Program findings will also be shared with other Black Hills communities that are interested in developing Community Paramedic programs.

d) Who will be involved in evaluating this work?

The parties responsible for the evaluation of the RCCP program include the RCCP Program Administrator (Chief Culberson), the lead Community Paramedic, the RCCP Advisory Committee, and the RH Liaison.

e) Describe collaborative successes or challenges, if applicable.

One of the challenges associated with community efforts such as the RCCP program is bringing the various organizations involved together in a unified vision and mission. The RCCP program will utilize an Advisory Board to help develop the strategic direction of the program and involve the stakeholders in the community. A member of the RCCP program will also attend Crisis Care Center Direct Services Meetings, a previously established group with a similar mission for helping the vulnerable people in our community.

RCCP Program Model of Operations

BACKGROUND RATIONALE

Develop and demonstrate program that is:

- Multi-level
- Multi-year
- Community-based
- Innovative

TO
Improve health of medically vulnerable populations

BY
Increasing access and directing patients to appropriate levels of care and services

PROGRAM STRUCTURE

RCRH

- Assist developing program plan
- Provide program consultation and guidance

RCFD

- Administer program
- Develop intervention
- Identify collaborators
- Inventory resources
- Staff program
- Implement interventions
- Create Advisory Board

Advisory Board

- Provide program guidance, consultation, and linkages with community
- Develops a strategic plan for program with supports from community organizations

PROGRAM INTERVENTIONS

Home Visits

Directed at:

- Persons with 5 more EMS calls for service and/or 5 or more ED visits in 12 month period
- Patients and clients referred by local providers and community organizations

Outreach

Directed at:

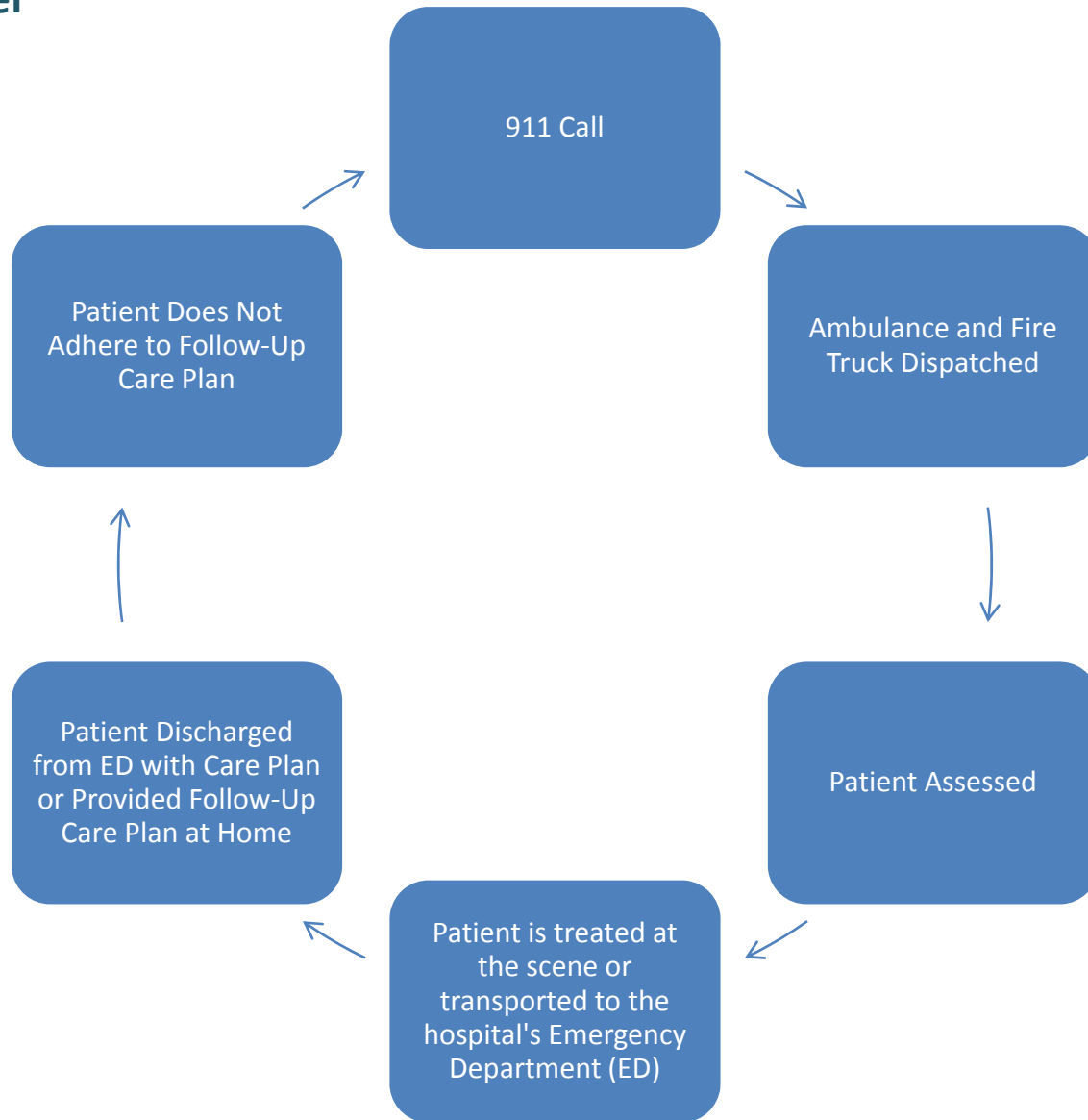
- Community Organizations
- Improving access
- Improving capacity
- Increasing proper utilization of resources

PROGRAM OUTCOMES

Emergency services

- Decrease EMS calls for services by 20%
- Decrease ED visits by 20%
- Increase referrals to appropriate level of care
- Increase education for community members on the appropriate utilization of emergency services

Current Model



RCCP Program Model

