The Community Paramedicine approach was developed due to a perceived gap in the emergency resources of local communities. This health care crisis has resulted from health care needs that have not been efficiently managed, due to a lack of applicable resources.

As is the case with most communities in the United States, an overburdened health care system leads to an inefficient use of resources. The needs of many citizens are not efficiently and effectively met due to a one size fits all care program. Due to the inability of EMS to meet the needs of all patients, an emerging concept has become relevant. This concept is called Community Paramedicine (CP), a system in which patients are provided a greater benefit from local EMS systems, through expanded policies and procedures that bridge the gap between Emergency and Primary care modalities.

This study will serve as a feasibility study to understand if the concept and implementation of CP provides a benefit to the community, over current systems. This study will include a literature review of systems that have already been established and researched, as well as an analysis of the findings of four local CP agencies in Colorado.

Fountain is a city in Colorado, just south of Colorado Springs. The city consists of approximately 33,000 citizens. The city is 25 square miles, with 19 miles of Interstate 25, from mile marker 135 to mile marker 116.

The Community Paramedicine approach was developed due to perceived gaps in care for patients calling 911. Much of the care necessary for target populations, including immunocompromised and geriatric, was not provided appropriately with a one size fits all emergency medical system, especially with Covid-19’s impact.

CP has allowed for a decrease in stress to the emergency medical system, while providing more specialized care to patients. Since its inception, CP programs have expanded to offer a number of critical services to the community including: mental health care and transport, medical condition diagnostics, prescription services, post care check up, wound care, in home EKG, medication administration, emergency procedures and much more.

Project Description

- We face a major health care crisis that has put an increasing amount of stress on the emergency medical care system, especially with Covid-19’s impact.
- As is the case with most communities in the United States, an overburdened health care system leads to an inefficient use of resources. The needs of many citizens are not efficiently and effectively met due to a one size fits all care program.
- This study will serve as a feasibility study to understand if the concept and implementation of CP provides a benefit to the community, over current systems. This study will include a literature review of systems that have already been established and researched, as well as an analysis of the findings of four local CP agencies in Colorado.

Methodology

- A literature review was conducted to understand experiences of current CP programs.
- Existing research was used to compare implementation methods and services offered across the world.
- Four agencies in Colorado were selected for a survey.
- The four agencies were selected based upon the existence of a CP program.
- The survey consisted of seventeen questions that sought to understand the experiences of each agency, including: Call volume prior to implementation, call volume of program, reduction in volume experienced by 911 apparatus, funding, revenue, community reception, providers experiences of value of the program and services provided.
- Both a Qualitative and Quantitative analysis were performed.
- The analysis’s were utilized to understand the advantages and disadvantages of implementation of a CP program.
- These style of analysis’s were utilized to allow Fountain Fire Department to perform a cost/benefit analysis to determine the feasibility of a CP program at the department.

Organizational Context

- Fountain Fire Department has three stations, fully staffed with Career and Volunteer firefighters. Front line apparatus include three fire apparatus and two ambulances. The department averages 5000 to 5500 calls per year.
- The Department is staffed with at least three Paramedic level providers per shift, also known as Advanced Life Support providers.
- Transport times to local hospitals average 30 minutes each way. Turn around time during transport of a patient to the hospital can leave an ALS apparatus out of service for upwards of an hour and a half.
- The Community Paramedicine approach was developed due to a perceived gap in care for patients calling 911.
- Much of the care necessary for target populations, including immunocompromised and geriatric, was not provided appropriately with a one size fits all emergency medical system, especially with Covid-19’s impact.
- CP has allowed for a decrease in stress to the emergency medical care system, while providing more specialized care to patients.
- Since its inception, CP programs have expanded to offer a number of critical services to the community including: mental health care and transport, medical condition diagnostics, prescription services, post care check up, wound care, in home EKG, medication administration, emergency procedures and much more.

Professional / Scholarly Background

- Much of the care necessary for target populations, including immunocompromised and geriatric, was not provided appropriately with a one size fits all emergency medical system, especially with Covid-19’s impact.
- CP has allowed for a decrease in stress to the emergency medical care system, while providing more specialized care to patients.
- Since its inception, CP programs have expanded to offer a number of critical services to the community including: mental health care and transport, medical condition diagnostics, prescription services, post care check up, wound care, in home EKG, medication administration, emergency procedures and much more.

Findings

- Before CRT, 98% of behavioral health patients were transported to the Emergency Room. Since implementation of the CRT only 11% were transported to the Emergency Room. “Implementation of CRT and CARES has increased emergency system usage in their members by 40%” (Wright, 2020).
- It is recommended that FFD’s CP program establish a partnership with local mental health care providers to perform follow up appointments with patients.

Methodology

- Ute Pass Regional Ambulance Division ran 3136 calls in 2019, 17.5% of which were mental health related and could be handled using the CP program.
- “In 2019 Ute Pass Regional Health Service District transported 1744 patients that’s a 27% increase in transports. 341 of those transports where CP transports conducted in an Alternative Care Transport (ACT) car” (McLaughlin, 2020).
- “In 2019 the PACT CP program at UPRHSD ran 564 calls for service like our 911 system our CP program continues to see 27.5% year over year annual growth” (McLaughlin, 2020).
- Colorado Springs Fire Department ran 59,596 calls for service in 2019. The Critical Response Team (CRT), the mental health care crisis apparatus, ran 3,000 of the calls for service. (Wright, 2020).
- It is recommended that FFD establish a partnership with local mental health care providers to perform follow up appointments with patients.

Takeaways and Recommendations

- CP programs are able to provide many types of medical services, which reduce the necessity of transporting patients to local hospitals.
- Utilizing a CP approach allows adequate medical care, in many circumstances, to be provided without saturating hospitals and primary care physician offices.
- CP allows care to be provided to those in need, while allowing Advanced Life Support Apparatus to stay in service.
- CP programs allow immunocompromised patients to be treated in home, decreasing the likelihood of further infection from the hospital.
- CP programs can be cost prohibitive, initially, but have the ability to be funded through grants and partnerships with other health care agencies.
- It is recommended that FFD establish a partnership with local mental health care facilities as a way to receive reimbursement for patient care and transport.
- Many of the soldiers that work on Fort Carson live in Fountain. It would be beneficial for the CP program to enter into a partnership with the United States Army, to better serve soldiers with their health care needs. Including substance abuse and mental health care needs.
- It is recommended that FFD’s CP program establish a partnership with local hospitals and Primary Care Physician’s to perform follow up appointments with patients.
- It is recommended that the CP program be able to perform diagnostic assessments on patients in need, to include blood labs and electrocardiograms.