**Category 1 Project Narrative**

**Williamson County & Cities Health District - 126936702.1.2**

**Project Area, Option and Title:** 1.6.2Establish/expand access to medical advice and direction to the appropriate level of care to reduce Emergency Department use for non-emergent conditions and increase patient access to health care

**RHP Project Identification Number:** 126936702.1.2

**Performing Provider Name:** Williamson County Cities and Health District

**Performing Provider TPI #:** 126936702

**Project Summary:**

* **Provider Description:** Williamson County and Cities Health District (WCCHD) is the local public health department for Williamson County and is responsible for serving a1,118 square mile area and a population of an estimated 442,782 (2011 Census data).
* **Intervention:** This project will implement Community Paramedicinein rural communities as an expanded scope of practice which will increase access to proactive health care, provide timely, well-informed care, appropriate transports and referrals which would prevent the cycle of accessing Emergency Medical Systems (EMS) for non-emergent events, leaving EMS to handle emergent needs.
* **Project Status:** Community Paramedicine is a new project.
* **Project Need-Community Need Area:** CN.1. (2, 3, 6 & 7) – Limited access to primary care: This project would increase access to primary care for individuals who reside in the rural areas of Williamson County with limited or inadequate access to care. In FY2012, 11,683 calls to EMS were identified for service that were generated from outside of an incorporated city and considered to be in the rural areas of the County. Of these calls, it is estimated that 40% of these events were generated as a result of the patient needing access to primary health care and were not related to an immediate life threatening emergency. Williamson County does not have a public transportation system and individuals living in the targeted rural areas of the county in need of health care for their chronic condition most often utilize the EMS system for transportation to a hospital.
* **Target Population:** Currently, a Community Paramedicine program does not exist for residents of Williamson County; however the initiative has the potential to reduce the established baseline approximately 6-10% for non-emergent responses in rural areas of the county which equates to approximately 470 responses. The target population is Medicaid-eligible, low income uninsured and indigent patients residing in rural areas with limited health care resources and diagnosed with a chronic condition.
* **Category 1 or 2 Expected Project Benefit for Patients**: This project seeks to establish a baseline in DY3. The baseline is anticipated to be 2,000 patient encounters in DY3. Our goal is to increase our baseline by 10% in DY4 or 200 additional patient encounters and 20% in DY5 or 400 additional patient encounters (see Improvement Milestone I-17.1). Benefit for the patients includes improved access to care, linking to a medical home, empowering and educating them about their chronic condition and appropriate utilization of their medical care.
* **Category 3 Outcomes:** IT-3.2 – CHF 30-day Readmission Rate: In DY4 and DY5, we will report the readmission rate among 45-80 year olds with index admission for Congestive Heart Failure (CHF) at hospitals participating in the Health Information Exchange (HIE). This includes the St. David’s hospital system and Seton hospital system. Reported numbers will reflect readmissions within the same hospital system only. In DY5, we will demonstrate improvement by completing Stretch Activity 4 (SA4) – Emergency Department Improvements.
	+ - **Collaboration:** Texas A&M Health Science Center (TAMHSC) had a Pass 1 allocation it could not use, since TAMHSC did not have providers in RHP 8. TAMHSC allowed its allocation to be used by local health departments and local mental health authorities (public entities) which had much smaller provider allocations in Pass 1, so these entities could have broader, transformative, regional projects. TAMHSC has not played a role in these projects, other than the role of anchor. There are no impermissible provider-related donations involved. This usage of the TAMHSC allocation ensured these providers, who could self-fund the required IGT, could participate in the waiver. Our goal is to expand our scope of practice providing outreach to underserved areas, educating the community about available resources for primary healthcare and identifying individuals with chronic health conditions. This will redirect patients to the appropriate types of services and building partnerships with local hospitals and agencies.

**Project Description:**

*Community Paramedicine – Improving, Expanding & Delivering Healthcare to Rural Communities*

This project would increase access to healthcare for individuals who are uninsured or under insured and reside in the rural areas of Williamson County with limited or inadequate access to primary health care. WCCHD proposes to incorporate the use of a team consisting of Paramedics, clinical support, education staff and medical direction to provide early primary medical assessment for those with limited access to care. In addition to primary care and preventive services, emergency medical services (EMS) are identified as crucial link in the chain of care. EMS, which includes basic and advanced life support, ensures that all persons have access to rapidly responding, pre-hospital EMS. WCCHD recognizes Community Paramedicine as an expansion of delivering healthcare services to rural communities and as a connection to an infrastructure in appropriate medical direction and system follow up. The landscape of healthcare is continuously evolving to becoming a more effective utilization of appropriate level of health care rather than the current system of using emergency departments (EDs) for primary and/or preventive care services.

WCCHD will position Community Paramedics in rural areas of the County on a scheduled and pre-determined basis to screen patients for chronic conditions such as diabetes, hypertension, obesity, congestive heart failure risk factors, and chronic respiratory risk factors. Positioning the team in rural areas identified with limited access to care, will reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care. In addition, the team will be trained to recognize possible risk for prescription drug interactions, monitor medication compliance, and provide diet counseling with the oversight and coordination of the patient’s primary care physician.

Services provided by the Community Paramedicine team will include:

* Coordinating appropriate level of care;
* Facilitating follow-ups after discharge from hospital;
* Educating on when and how to access emergent and non-emergent services;
* Positioning team and Peak Demand Unit in underserved areas; and
* Community outreach and building partnerships with local hospitals and agencies.

According to the Computer Aided Dispatch (CAD) system, 11,683 calls were identified for service during FY2012 that were generated from outside of an incorporated city and considered to be in the rural areas of the County. Of these calls, it is estimated that 40% of these events were generated as a result of the patient needing access to primary health care and were not related to an immediate life-threatening emergency. The Community Paramedicine project has the potential to reduce the established baseline approximately 6-10% for non-emergent responses in rural areas of Williamson County.

In addition to the CAD system data, the *Williamson County Community Profiles* identifies rural areas with targeted zip codes in having a higher rate of hospitalizations for chronic conditions such as Diabetes and Asthma as compared to the State rate. For example, in zip code area 76574 the hospitalization rate for diabetes was 22 per 10,000 population. The State rate was 16 per 10,000 population. Targeted zip codes identified are:

|  |  |  |  |
| --- | --- | --- | --- |
| 76574 | 76527 | 76537 | 76578 |
| 78634 | 78664 | 78641 | 78681 |

**Goals and Relationship to Regional Goals:**

This project works to apply best practices and continuous quality improvement by reaching out to the underserved areas of the county. The Community Paramedicine Program will use a patient-centered and coordinated care navigation model which will improve appropriate and timely access to healthcare.

**Goals:**

* Reduce unnecessary emergency department visits;
* Reduce non-emergency EMS calls for service and help direct those in need to the appropriate care through available resources and case managers;
* Increase the number of patients connected to a medical home; and
* Decrease the rate of hospitalizations for targeted population as a result of their chronic condition.

**This Project meets the following Regional Goals:**

* Improving access to timely, high quality care for residents, including those with multiple needs;
* Increasing the proportion of residents with a regular source of care; and
* Reducing inappropriate utilization of services.

**Challenges:**

The primary challenge will be reaching out to the appropriate residents in need of these specific services and maintaining contact throughout the system. Next, identify the needs and match the appropriate resources to provide the necessary education and alternative ways to access the system specific to their needs. Lastly, correlate all the data, so we can improve our delivery of service and find other ways to achieve objectives in a fiscally responsible manner. Through appropriate level of training in health literacy, medication management, care coordination, cultural competency, and involvement of hospitals, the team can address the needs and resources to facilitate patient and provider engagement.

**5-Year Expected Outcome for Provider and Patients**:

WCCHD expects to see improvements for this expanded scope of practice for patients clearly in need of appropriate medical care direction and system follow-ups. The provider expects to improve the hospitalization rates for targeted zip code areas.

**Starting Point/Baseline:**

Currently, an expanded scope of practice, such as Community Paramedicine does not exist for targeted population in the WCCHD system. Therefore, the baseline was established in DY3.

**Rationale:**

**Community Need Addressed:**

* Community Need Area: CN.1 – Limited Access to Primary Care
* Specific Community Needs:
* CN.1.2 – Limited to access to primary care for residents under 200% FPL
* CN.1.3 – Limited access to primary care
* CN.1.6– Limited access to primary care for rural residents
* CN.1.7 – Limited access to preventive interventions for women of child bearing age and individuals with diagnosed chronic disease

In the current landscape of healthcare, EMS, as in the majority of the nation is considered a stand-alone public service like police and fire, with little or no integration into the larger health care system at the local level. Establishing Community Paramedicine in rural communities as an expanded scope of practice will increase access to proactive health care, provide timely, well-informed care, appropriate transports and referrals which would significantly decrease the overall cost of care and improve the quality of life for rural patients. This would also prevent the cycle of accessing EMS for non-emergent events, leaving EMS to handle emergent needs.

As noted in the table below, the age-adjusted death rate due to heart disease was over twice as high in the Taylor, TX zip code 76574 (383 per 100K population) when compared to both Texas (194 per 100K population) and Williamson County (131 per 100K population). The rate for cerebrovascular diseases (e.g. stroke) was twice as high in zip code 76574 (66 per 100K population) when compared to Williamson County (33 per 100K population) (Source: DSHS Vital Statistics analysis by WCCHD, 2006-08, <http://www.wcchd.org/statistics_and_reports/docs/Precinct_4_Profile2011.pdf>).



The ICare database includes health care encounters for the uninsured, and publically insured population, excluding Medicare patients, in Williamson County. Encounters at all but one hospital provider network are included, as are those from the local FQHC clinics.

* In 2010, ICare data showed that there were 144 frequent users of emergency departments (6 or more visits in a single quarter). This population averaged 15 visits annually and accounted for 2,111 patient visits.
* Analysis of vulnerable populations in Williamson County (defined as the near elderly, homeless, those with a behavioral health condition, and the disabled) showed that there were about are 10,600 vulnerable patients in the ICare database in 2011.
* This population averaged 2.3 emergency department visits each, with the maximum number of visit for a single patient being 52. Vulnerable frequent users (6 or more visits in a single quarter) averaged 15 visits per patient.

Key findings from the EMS data system, of all cardiac related calls in the first 3 quarters in 2011, 46 percent were in the target counties (n=693).

One simple conclusion can be drawn from this data and that is the expanded scope of practice would be advantageous to the targeted population zip code areas where a need is clearly demonstrated. While the primary mission of an EMS system is to provide readily available, accessible and cost efficient pre-hospital care, expanded scope programs such as Community Paramedicine improve the quality of care and life for individuals and decrease the utilization of EMS transports for accessing primary care within the emergency departments without compromising the integrity of the emergency response system. Incorporating an Electronic Health Record, utilizing a screening eligibility tool and enhancing the current database capturing EMS transports, will track and monitor activities and metrics associated with this project.

A variety of data will be collected and aggregated to determine priority areas for project efforts. These data sources may include:

* ICare data to identify frequent ED utilizers related to target conditions.
* Hospital discharge data to identify readmissions for target conditions.
* EMS data systems to identify non-emergent calls for target conditions.

By aggregating data from the data systems listed above, as well as others as needed, we will be able to best identify where our priority populations live and what services they need.

**Project Components:**

Through the Community Paramedicine, WCCHD proposes to meet all required project components.

1. *Develop a process (including a call center) that in a timely manner triages patients seeking primary care services in an ED to an alternate primary care site. Survey patients who use the nurse advice line to ensure patient satisfaction with the services received.* In this project, we are not establishing a nurse advice line; rather, we are utilizing paramedic calls and systems to proactively assess patients and referring to external partners to provide patient navigation.
2. *Enhance linkages between primary care, urgent care, and Emergency Departments in order to increase communication and improve care transitions for patients.* Our goal is to have a collaborative effort by utilizing existing data from ICare and our electronic patient care records to identify the patients in need. This will improve communications between the ED, EMS, primary care and urgent care, allowing for the patient to gain education, find available resources and provide direction to the most appropriate avenue of care based on their specific needs. This will strengthen the linkage between community and healthcare in the underserved areas of Williamson County.
3. *Conduct quality improvement for project using methods such as rapid cycle improvement--* With the addition of a quality improvement Captain, they will be able to manage the project based on a rapid cycle improvement model. First, help establish what needs to be accomplished, secondly what changes can we make to result in an improvement and thirdly, how will we know an improvement has been made. Each step is defined in the outline of the template which defines the goals, baselines and measuring improvement.

**Continuous Quality Improvement:**

WCCHD is committed to continuous quality improvement and learning related to this project. We will establish quality improvement activities such as rapid cycle improvement and will perform other activities such as “lessons learned” and identifying project impacts. In addition, we are participating in a regional learning collaborative which share information such as challenges, lessons learned and considerations for safety net populations. This collaboration will streamline the appropriate delivery of healthcare to the citizens who do not have access to primary healthcare or have used the 911 system or emergency departments as their primary healthcare.

**How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:** Currently, a Community Paramedicine program does not exist for residents of Williamson County. Our system offers case management and patient navigation services, but these are typically only accessible to patients who call into our Healthcare Helpline and/or enrolled in the County Indigent Health Care Program. The initiative will improve access for targeted patients while diverting patients from emergency rooms to a medical home for healthcare needs.

WCCHD does not receive funding from the U.S. Department of Health and Human Services that will be used for this program.

**Related Category 3 Outcome Measure(s):**

* The following Category 3 measure has been approved in 2014 to describe improvements to the patient population: IT-3.2 (Congestive Heart Failure [CHF] 30-day Readmission Rate)
	+ IT-3.2 – CHF 30-day Readmission Rate: In DY4 and DY5, we will report the readmission rate among 45-80 year olds with index admission for Congestive Heart Failure (CHF) at hospitals participating in the Health Information Exchange (HIE). This includes the St. David’s hospital system and Seton hospital system. Reported numbers will reflect readmissions within the same hospital system only. In DY5, we will demonstrate improvement by completing Stretch Activity 4 (SA4) – Emergency Department Improvements.

Reasons/Rational for selecting the outcome measure:

Selection of this Category 3 outcome is aligned with the Community Paramedicine focus on chronic disease education and intervention to decrease hospitalizations. Congestive Heart Failure (CHF) hospital readmissions are typically preventable. This project was therefore chosen to demonstrate the effectiveness of the Community Paramedicine Team interventions. The Community Paramedicine team will empower, educate and link individuals to right care/right setting to increase appropriate level of care. Linking to medical services and determining eligibility through the WCCHD Patient Navigation Program (126936702.2.1), patients are more likely to be compelled in seeking services for their chronic disease. Education and health literacy introduce opportunities for health promotion and knowledge of their chronic condition in order to control and manage their disease.

**Relationship to Other Projects:**

This project is one in a system of DSRIP projects that will increase access to health care, improve quality of care, and improve health outcomes for rural populations including:

* 126936702.1.1 Expanded Capacity for Access
* 126936702.1.3 Implement project to enhance collection, interpretation, and/or use of REAL data;
* 126936702.2.1 Provide navigation services to targeted patients who are at high risk of disconnect from institutionalized health care; and
* 126936702.2.2 Engage in population-based campaigns or programs to promote healthy lifestyles using evidence-based methodologies including social media and text messaging in an identified population

**Relationship to Other Performing Providers’ Projects in the RHP and Plan for Learning Collaborative***:*

No other providers in RHP 8 are establishing a Community Paramedicine. We have collaborated with other performing providers in the RHP to include the continuum of care necessary for targeted population served. Through the St. David’s Round Rock Medical Center project (#020957901.1.1), referring and connecting uninsured individuals under the 200% FPL seeking acute care services. In addition, working with Bluebonnet Trails Community Services – Emergency Services Diversion Project (#126844305.2.2) will identify frequent utilizers of emergency services; provide early intervention or intensive wraparound services and supports for a targeted behavioral health population, including people with co-occurring disorders. By coordinating the above mentioned projects, we can contain costs by avoiding the duplication of services, and provide meaningful delivery system reform to the underserved and low-income populations. Several learning collaboratives of professionals from the areas of primary care and mental health services exist in Williamson County. These active groups, who meet monthly, strive to provide continuous quality improvements, seek new ideas and solutions to improve patient outcomes, and share with others across the State of Texas and the nation.

**Project Valuation:**

The valuation of each WCCHD project takes into account the degree to which the project accomplishes the goals of the Waiver, community needs, the aggregate population served by the project (both number of people and complexity of patient needs), and investment required to implement the project. Integrated Care Collaboration has identified an estimated approximately 2,500 emergency room visits per year that could have been diverted to a more appropriate resource. With an estimated $500 per visit, this equates to an estimated valuation of $1,250,000 per year. In addition, Emergency Medical Services has identified approximately 2,000 calls for service per year in the rural areas that could have been managed by primary care or outpatient services. The cost of an average Advanced Life Support call is $1,100 or an estimated valuation of $2,200,000 per year. With the implementation of the community paramedic project, the opportunity for cost savings could offset the cost of program and provide the most appropriated healthcare resources to our citizens with the result of better patient outcomes. WCCHD considers this project as high need because it will serve a significant number of residents in the community, specifically those that encounter barriers to accessing preventive health services. Providing timely, well-informed and appropriate level care will divert these types of needs from the urgent and emergent care facilities. Being able to access theses services at an appropriate and more affordable level of care will reduce the associated uncompensated care costs. Overall, the project seeks to accomplish delivery system reform by understanding that there is a shortage of clinics that provide preventive health services in this community; that due to this shortage, the average wait time for a new patient can be three weeks or longer; and that in order to fill in this gap in care, additional funding sources and support is needed. Moreover, the diversion of inappropriate non-emergent care services through urgent and emergent care facilities, to increase access points to timely and appropriate level of care, would improve patient care and satisfaction. Estimated costs for DYs 2-5 for hiring qualified staff, purchasing equipment, unit vehicle and necessary supplies has a cost value of $3,930,304.