Grant Proposal
Funding Opportunity No.
HHS-2008-CMS-ANESP-0005

Commonwealth of Pennsylvania
Department of Public Welfare

Establishment of Alternative Non-Emergency Service Providers, Emergency Department Triage and Improved Access to Non-Emergency Care in McKeesport, Pennsylvania

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The Commonwealth of Pennsylvania State Medicaid Director, Michael Nardone, supports this funding request.

Applicant Preference

This grant is intended to develop alternatives to emergency services for the Medicaid and Medicare Special Needs (dual eligible) populations in McKeesport, Pennsylvania.

UPMC McKeesport Hospital qualifies for this grant as it is located within the 15132 zip code. All census tracts within this zip code are designated as an HPSA (Health Professional Shortage Area) with a score of seven (7) and a designation status date of December 22, 2000. Additionally, the following census tracts are designated as an MUA (Medically Underserved Area): 5512, 5519, 5521, and 5509. Both attachments were developed using the HRSA (Health Resources and Service Agency) Data Warehouse website: http//datawarehouse.hrsa.gov/.

UPMC McKeesport Hospital has a direct partnership with two primary care centers: Health First Medical – UPMC and Latterman Family Health Center – UPMC. These centers are owned by the University of Pittsburgh Medical Center. The hospital has direct management and oversight of both centers.

Health First Medical – UPMC is structured and operated as a private practice. This practice employs three board-certified internal medicine specialists, one of whom is also board-certified in geriatrics. The other health care professionals employed by this practice include one certified nurse practitioner, one registered nurse, and other support staff. The services provided at this practice include diagnosis and treatment of the adult patient.

Latterman Family Health Center – UPMC is the outpatient training center for the hospital's Family Medicine Residency, the Family Medicine/Psychiatry, and Osteopathic Medicine Programs. The center is staffed with seven board-certified family medicine physicians, one of whom works on a part-time basis. Two of these physicians have additional qualifications in obstetrics. There are also two part-time pediatricians and a psychiatrist that provide services one day per week. All physicians in this center are faculty Members within the Family Medicine Residency Program and precept 20 family medicine residents. The services provided at this center include family medicine for patients of all ages, including prenatal care and delivery.

It is important to note that while UPMC McKeesport Hospital has direct management and oversight of these centers, the hospital also has a strong, collaborative relationship with each of the physicians. As such, we can work together to easily expand the scope of services and hours of operation to meet the needs of the community. If a HealthChoices Member or recipient has a PCP other than at Latterman First Health, the provider office will be contacted if the Member or recipient presents during office hours. Specific arrangements for the patient will be made with the provider's office, including assessment and referral to the provider office as appropriate. A primary goal of the project is to maintain consistent linkage to the current PCP if one is identified, and to establish a positive PCP relationship with a provider of the patient's choice if the Member does not have a PCP.

Establishment of Alternative Non-Emergency Service Providers,
Emergency Department Triage and Improved Access to Non-Emergency Care in McKeesport, Pennsylvania

Abstract

The Department of Public Welfare in collaboration with the UPMC Health Plan proposes to improve patient access to care in McKeesport, Pennsylvania, through the development of an innovative system of alternate non-emergency services providers. In the McKeesport area, Medicaid Members are utilizing emergency room services at a rate of 115 visits per one hundred Members per year. The project's main goals are to decrease non-emergent ED visits, improve quality of care and promote the concept of advanced medical home and therefore decrease overall Medicaid ED spending in the targeted area. To support this initiative, DPW will conduct a statewide campaign to educate Medicaid recipients on the appropriate use of ED services.

The estimated budget for this proposal is $1,661,560.

The proposed system will include a triage line at the UPMC McKeesport, Hospital Emergency Department (ED), a new Urgent Care Center (UCC) within a separate wing of the hospital, the Latterman Family Health Center (LFHC) and additional resource support at Health First, the largest private practice serving the Medicaid population. This proposal will allow UPMC Health Plan to establish an alternate delivery model that focuses on the provision of non-emergent services in the outpatient environment through partnering with the primary care physicians of the target population. Additional resource support, including the quantity of staff, expanded hours of operation, and a 24/7 triage phone line, will allow UPMC Health Plan to establish alternate non-emergency providers to serve the target population. The grant will provide start-up funds to establish a pilot program that will decrease the number of Members and recipients seeking non-emergent care in an emergency care setting and will improve access to care for the underserved population. Because UPMC McKeesport Hospital, LFHC and Health First are all contracted providers with the two other health plans serving HealthChoices in the Southwest Zone, this pilot program will be able serve any HealthChoices Members as well as MA recipients presenting to the ED and not just UPMC Members. UPMC McKeesport will be able to work with all Members, regardless of which plan they are enrolled with, to connect them with their medical homes.

The project will bring an estimated annual savings of $520,000 to UPMC Health Plan. UPMC Health Plan serves approximately 25 percent of the total Medicaid Membership in the McKeesport service area. The project will impact all Medicaid recipients regardless of MCO status. The expected outcome of the pilot program, over a one-year period, would decrease the overall cost to the Medical Assistance program by $2,080,000. Future expansion of this program to cover the 275,000 enrollees in UPMC Health Plan's 10-county Medicaid and Special Need service area could result in approximately $131 million in savings. Savings estimates are based on an assessment of the portion of current ED visits that are avoidable. For purposes of this proposal, ED visits at Levels I and II, and 50 percent of the ED visits at Level III are assumed to be avoidable. Total cost savings are based on the net cost difference between the reimbursements for the ED visit at each level, less the average payment to the PCP office for a sick visit. Total estimated savings using this formula are $520,000 annually.

Statement of Project/Need

From 1994 to 2003, the number of annual ED visits increased by 26 percent in the U.S., reaching a record high of 113.9 million visits, about 38.9 visits per 100 persons.[1] Thirty-three percent of these visits were classified as semi-urgent and non-urgent, and therefore treatable in an alternate setting. During the same time period, the number of hospital EDs decreased by approximately 12.3 percent. Medicaid enrollees had the highest ED utilization rates (81 visits per 100 persons) and private insurance patients had the lowest ED utilization rate (21.5 visits per 100 persons) in 2003. The use of ED services within the Commonwealth of Pennsylvania mimics the national trends, with a 27.2 percent increase in the number of visits between 2004 and 2006. In 2006, within the Commonwealth of Pennsylvania, the annual number of ED visits was 77.9 per 100 persons. In 2006 within the Commonwealth of Pennsylvania, the number of ER services for Medical Assistance (MA) recipients mirrors the national trends, with a 27.2 percent increase in the number of visits between 2004 and 2006. In 2006, the utilization rate of ED services by MA recipients within the Commonwealth of Pennsylvania was 77.9 per 100 persons. The Department of Public Welfare (DPW) and UPMC for You are longstanding business partners, and DPW will continue to collaborate with and to monitor UPMC for You throughout this project. The Department, UPMC for You and UPMC McKeesport are strongly committed to the success of this project, and to the eventual implementation of this initiative statewide to benefit all Medicaid recipients.

Currently, UPMC McKeesport provides patient care for the underserved population within the McKeesport community. The McKeesport community provider network mirrors the traditional structure of private practice and hospital-based services. An assessment of the use of the ED at

[1] McCriag et.al, *National Hospital Ambulatory Medical Care Survey 2003, Emergency Department Summary Advanced Data*, Number 358, May 25, 2005, http://www.cdc.gov/nchs/data/ad/ad358.pdf.

UPMC McKeesport indicated that approximately 37 percent of visits were non-emergent in nature. For the purposes of this proposal, an ED visit is classified as non-emergent based on the prudent layperson standard and includes urgent but not emergent conditions that can be more appropriately treated at an urgent care center, primary care practice, or an advanced medical home. Often, these conditions are short-term manifestations of chronic conditions such as heart disease and diabetes. In addition, there is a subset of acute minor conditions that could be adequately treated in a less intensive setting such as a primary care office or urgent care center. This program supports Governor Rendell's Prescription for Pennsylvania, designed to implement initiatives to reduce inappropriate ED utilization and improve the quality of care provided to the Commonwealth's citizens by expanding access to care and maintaining strong linkages between consumers and their primary care providers.

In the McKeesport area, HealthChoices Members and recipients are utilizing emergency room services at a rate of 115 visits per one hundred Members per year. This rate of ED visits is significantly higher than the U.S Medicaid average of 81 per one hundred Members per year. The hospital is deemed as a safe place to receive medical care after hours. In addition, the community practices operate under the traditional model of scheduled care with limited evening and no weekend hours. The current model does not optimally meet the chronic care needs of the McKeesport community and leads to fragmented episodes of care that lack preventive services and do not promote regular access to care. According to the Institute of Medicine, the quality of primary care services delivered in the ED may be of a lesser quality than that of primary care services provided in primary care settings, given the nature of EDs and the fact that ED physicians do not have a relationship with the patient or access to detailed patient histories and records.[2] In addition, use of the ED by persons

[2] Institute of Medicine (IOM), *Hospital Emergency Care: At the Breaking Point*, National Academy of Sciences Press, 2006

with non-emergency needs reduces the availability of ED staff to provide services to those persons truly in need of emergency services. Members who routinely use the ED in lieu of appropriate primary care services are less likely to be linked to a medical home and a primary care provider who is responsible for coordinating appropriate continuing care, including participating in disease and care management and managing necessary specialty health care services.

Our proposed model of care incorporates the use of an urgent care center and open access primary care practice functioning as an advanced medical home. The goal of the program is to identify the frequent users of non-emergent ED, redirect them to a chronic care setting where acute minor conditions will be managed more efficiently, and decrease inappropriate ED utilization. The Urgent Care Center and Latterman Family Health Center and Health First will be open-access facilities where appointments will not be necessary. The clinical care professionals will direct patients to the appropriate level of care. The proposed model will enhance continuity of care by identifying the patient's medical home and collecting this information for the patient's Urgent Care Center electronic medical record. The Urgent Care Center staff will emphasize and reinforce the importance of the primary care physician and preventive health, whether immediate or urgent care is needed.

Project Justification

The proposed model will have four component parts: 1) a free standing Urgent Care Center at UPMC McKeesport 2) a 24/7 telephonic and in-person triage system 3) an open access model at the Latterman and Health First Primary Care Practices 4) wrap-around care management resources that include proactive interventions for pre-determined at-risk populations, remote telemonitoring and clinical integration with UPMC Health Plan care management programs and services.

Free Standing Urgent Care Center

1) The new Urgent Care Center will be located in a separate wing of the hospital. The Urgent Care Center will be open Monday through Friday from 4 p.m. to 12 a.m. and Saturday and Sunday noon to 12 a.m. The Latterman Family Health Center will operate Monday through Friday from 8 a.m. to 7 p.m. The overlap of Latterman Family Health Center and Urgent Care Centers hours will ensure patients have access to urgent care.
2) To accommodate the longer hours and need for open-access care at both Latterman Family Health Center and Urgent Care Center, both facilities will expand their staffing pattern.
3) A Licensed Individual Practitioner will be on-site at the Urgent Care Center during hours of operation.
4) UPMC Health Plan will collaborate with UPMC McKeesport to educate Latterman Family Health Center staff to ensure that patients are treated the same day for urgent care service.

24/7 Telephonic and In-Person Triage System

1) Patients will be evaluated upon arrival at the ED by an Licensed Individual Practitioner
    a. If they require emergency care, they will be treated in the emergency room.
    b. If they require non-emergency care, they will be offered alternatives to traditional ED evaluation that include the Urgent Care Center and readily available primary care services. The decision to refer a patient to the Urgent Care Center or the Latterman Family Health Center will be based on the patient's needs and the facility's hours of operation. All patients who arrive at the ED when the Urgent Care Center or Latterman Family Health Center) are closed (i.e., Monday 12:00 AM -8:00 AM) will be treated in the ED.

2) The program will include a 24/7 medical telephone care line staffed by registered ED nurses. The registered ED nurses will evaluate Members that call the telephone line and refer them to the most appropriate care setting. After evaluation, the registered nurse will:
    a. Direct patients to the ED if emergency care is needed.
    b. Direct patients to the Urgent Care Center or the Latterman Family Health Center if urgent care is needed. The nurse will decide if the patient should be referred to the Urgent Care Center or the Latterman Family Health Center depending on the time of day and/or the needed services.
3) If a patient calls when the community practice and the Urgent Care Center are closed, the appropriate triage will occur. Patients who must see a Licensed Individual Practitioner will be referred to the ED.

Open Access Model For Primary Care

1) Latterman Family Health Center will have expanded office hours from 8 a.m. to 7 p.m. Monday through Friday.
2) Latterman Family Health Center and Health First Medical will provide increased access to care through the addition of a Licensed Individual Practitioner to their staffing to ensure same-day access to services.
3) The open access model for primary care will facilitate urgent care treatment through the creation of same-day appointments.
4) Latterman Family Health Center and Health First Medical will incorporate the attributes and values of the advanced medical home and adopt the chronic care model into their daily practice.

Wrap-Around Care Management Services

1) On-site care managers employed by the health plan are located in the primary care practice sites and will support physicians and identify at-risk patients. The care managers have electronic real time access to both the electronic patient record and the health plan claims data to facilitate care coordination. These proactive initiatives can mitigate the risk for unnecessary recurring visits to the ED.
2) A community education campaign will publicize the new model for patients to become familiar with improved access-to-care.
3) Staff will have use of advanced medical technology in the form of case management software to allow for coordination of care between the UPMC Health Plan care management program, the Latterman Family Health Center and the Urgent Care Center. The case management software includes:
   - A predictive modeling tool, MEDai, to identify at-risk patients to proactively meet their medical needs.
   - A sophisticated, remote patient-monitoring system to provide tele-health services. This tool creates a virtual, in-home environment, bringing patient, physician, nursing and care management staff together to provide services to home-bound, isolated, elderly, hospice, and palliative care patients who would typically visit the ED for their care needs. This technology's advanced surveillance features will allow practitioners to monitor subtle changes in the patient's health status and intervene to address concerns before they reach urgent levels. The remote patient-monitoring system:
     - Collects data and provides real-time feedback regarding self-management of symptoms. In addition, it includes guidelines to assist in patient education in an effort to self-manage their own conditions.

- Provides access to clinical care guidance, bringing resources and support services into the home to reduce the need for emergency room care.
- Creates a virtual outpatient experience with real-time audio and video conferencing that allows immediate patient care needs to be addressed.

This advanced technology will result in the creation of an electronic health record to facilitate coordination and continuity of care.

UPMC Health Plan will educate the community about these new and improved resources by developing a comprehensive communication plan.

Media Campaign[3]

Concurrently with this initiative, DPW will develop a statewide patient education campaign on the appropriate usage of ED and the importance of seeking regular primary care services. The campaign will complement the McKeesport initiative while educating Medicaid enrollees statewide on the appropriate use of ED services and the availability of ED alternatives.

The campaign will include:

- Posters and brochures encouraging enrollees to call their primary care provider's 24 hour line when considering accessing the ED, and promoting appropriate self-care and informed decision making. DPW will work with the health plans to distribute the posters and brochures to primary care practices and other key locations.

[3] DPW included a request to fund a statewide educational campaign with a focus on the initiative's target area, in both proposals submitted within this application. Although the contractual and printing costs for this campaign were included within both proposals, if CMS decides to fund both initiatives, we will modify the final approved budget to reflect these costs only once.

- Notices emphasizing the importance of seeking regularly primary care and preventive services. The Department's goal would be to mail the notices to prioritize the distribution of these documents to Members and recipients residing in the targeted project areas and as budget allows, distributing notices to the entire Medicaid population throughout Pennsylvania. The DPW staff will develop the materials at the appropriate literacy level and in Spanish.

Project Goals and Outcomes

The goals and outcomes for the Department's partnership with UPMC are to:

- Reduce non-emergent ED visits by redirecting non-emergent visits to a more appropriate care setting
    - In year one, redirect 50 percent of targeted avoidable ED admissions
    - In year two, reduce the percentage of avoidable admissions to 25 percent, i.e., 25 percent of the current level of 3910 admissions. Avoidable admissions will have been reduced from 3910 to 978 annually.
    - Reduce ED visits by 20 percent in year one
    - Reduce ED visits by an additional 20 percent in year two to less than the national average
- Create an improved clinical experience for this underserved population and increased patient satisfaction with a goal that at least 80 percent of patients redirected to settings other than the ED will be satisfied with their experience
- Improve the overall quality of care and health of the population and increase participation in care management services
- Promote the concept of advanced medical home and reach a goal that 90 percent of members and enrollees have at least one office visit with their PCP annually by the second program year

- Create an environment where the patient population accepts the medical home as their chronic care delivery site and reduce gaps in chronic care by 25 percent by the conclusion of the second program year; expand the use of the integrated team approach for patients with chronic conditions
- Decrease isolation and improve patient connectivity with the re-engineered health care delivery system
- Improve health literacy
- Improve emergency preparedness through comprehensive care
- Use existing EMR technology to access medical records
- Educate enrollees statewide regarding appropriate use of the ED, and the importance of establishing and maintaining a medical home to effect long-term change in the recipient's utilization patterns

Estimate of Impact to Beneficiaries

The projected number of individuals in the UPMC Health Plan Medicaid and Special Needs programs in McKeesport zip code 15132 is 2,912. McKeesport is located within Allegheny County, Pennsylvania. The estimated McKeesport median household income in 2005 was $25,700, when compared with the $44, 5537 for the Commonwealth of Pennsylvania. White, Non-Hispanics represents 71.7 percent of the population and African Americans represent 24.5 percent.

This pilot program will divert annually approximately 3,960 non-emergent visits by UPMC Health Plan McKeesport service area HealthChoices Members. This number of visits represents 37 percent of the total emergency room visits made by UPMC Health Plan Medicaid Members residing in the UPMC McKeesport service area. The demonstration pilot can be expanded to the approximately 275,000 Medicaid Members in the ten counties in Southwestern Pennsylvania.

The project will improve continuity of care and health outcomes for the targeted Medicaid population as a result of their participation in care management programs. The project will also improve the quality of care through shared access to medical records between Latterman Family Health Center and the Urgent Care Center and the ED. Real-time coordination will enhance the speed of treatment and the coordination of care. This pilot program will provide a comprehensive level of care which is especially important to Members with chronic conditions. The enhanced care management model will include follow-up with patients after they seek care from any of the previously mentioned services.

Description of Magnitude of the Impact to Medicaid

Over a one-year period, implementation of this pilot program would reduce cost to the UPMC Health Plan by $520,000 upon seeing approximately 3,960 patients at the appropriate level of care, rather than more costly visits to the ED. The expected outcome of the pilot program, over a one-year period, would decrease the overall cost to the Medical Assistance program by $2,080,000.

Description of Sustainability of the Project

The Department and UPMC Health Plan believe this proposal plan for an advanced triage system and improved access-to-care model in McKeesport is sustainable due to the following:

- Treatment services are reimbursable and will increase.
    - Latterman Family Health Center will expand hours by 55 hours/week, (40/week during current hours and 15 new hours) at $200 gross income/hour X 52 weeks = $572,000
    - Urgi-care Center will operate 64 hours/week at $200 gross income/hour = $665,600
    - Health First will add 40 hours (1 FTE) of Physician Assistant at $200/hour X 52 weeks = $416,000
    - Total added cost will be $282,934 (direct staffing for practice and Urgi-Care)

    - Net revenue is projected to be $1,370,666

- Model is consistent with the Governor Rendell's Prescription for Pennsylvania, i.e. Chronic Care Management and the use of Extenders and will improve outcomes of care and therefore anticipated costs.
- By increasing LFHC and Health First volume, the overhead cost is reduced and net profitability is increased.
- As current ED volume is reduced by appropriate redirection of patients to other levels of care, ED staff coverage could be reduced by 15 to 20 percent, or approximately $125,000.
- Net revenue increase, plus cost savings from reduced ED staffing, are projected to be at a level capable of sustaining the cost of the program over time.

Evaluation Plan

For this pilot program, UPMC Health Plan will dedicate resources to program evaluation, including analysts, health services researchers and other necessary resources. The Health Plan will be responsible to staff the data collection and outcome analysis for the project and will conduct ongoing evaluation and measurement as follows:

- UPMC Health Plan will distribute focused satisfaction surveys to Members and enrollees who are patients of the identified practices, users of the urgi-care center, and users of the Emergency Department at UPMC McKeesport during the period the program is initially operating (from April 1, 2008 through June 30, 2009) and during the final quarter of the project. The survey will include queries about speed and quality of service, satisfaction with the care process, willingness to use the service again, quality of coordination of care with the PCP, responsiveness of the provider, and overall satisfaction. This will be compared with a

survey conducted for a similar period prior to the initiation of the project (April 1, 2007 through December 31, 2007), which will be used as a baseline for comparison.

- The Heath Plan will analyze monthly claims data to monitor the effectiveness of redirecting members to alternative primary care sites, the reduction in ED visits and improvement in the ratio of ED visits to PCP visits/Member. This will be computed by the Health Plan from paid claims data in the fourth quarter (June to September, 2009), based on continuously enrolled membership in the target service area. Calculations will be based on ED visits/100 for enrollees in the target service area.
- At the end of the first year, UPMC will use claims data to evaluate the increase in the number of Members with at least one office visit with their PCP.
- To evaluate compliance with Chronic Care guidelines UPMC Health Plan will conduct an analysis of Medicaid-specific HEDIS results in gaps in care as part of its annual HEDIS submission preparation. The analysis will be specific to enrollees in the identified service area.
- UPMC will compute and evaluate avoidable admissions based on paid ED claims for Members and enrollees in the target service area and adjust for changes in enrollment.

Description of Project Implementation Readiness

UPMC for You will dedicate a grant administrator to implement and oversee the project (including oversight of communication, IT, and analytical support) drawing upon resources from UPMC Health Plan and UPMC McKeesport when needed.

Table 2: Major Milestones for Program Implementation

		Grant Year 1 (10/1/07 – 09/30/08)				Grant Year 2 (10/1/08 – 9/30/09)			
No.	Major Milestone	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Establish Steering Committee	X							
2	Engage Project Manager	X							
3	Establish Baselines of Clinical Process Flow for participating entities	X							
4	Develop Site-specific work plans for participating entities		X						
5	Implement Program at Latterman Family Health Center		X						
6	Implement Program at Health First Medical		X						
7	Implement Urgi-Care Program and UPMC McKeesport Hospital	X							
8	Implement Triage Program	X	X						
9	- Develop global project work plan	X							
10	Implement Health Plan staffing for care management - Define roles and responsibilities - IT support - Health education curriculum	X	X						
11	Program Evaluation		X	X	X	X	X	X	X