Project Title: Grant Funds for the Establishment of Alternate Non-Emergency Services

Providers: Montcalm Area Health Center/Spectrum Health-United Memorial Hospital

Applicant Name: Michigan Department of Community Health
Medical Services Administration
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Abstract

The Montcalm Area Health Center is opening in Greenville, Michigan in November, 2007. It is a branch of Cherry Street Health Services, a Federally Qualified Health Center (FQHC). The Health Center will partner with Spectrum Health – United Memorial Hospital in an effort to reduce inappropriate emergency room admissions. A precipitating factor in the implementation of this program is the significant reduction over the past few years in the number of local primary care physicians who are willing to accept Medicaid and the consequent overuse of the emergency room by those who have Medicaid coverage.

The Montcalm Area Health Center will serve Medicaid recipients, the uninsured and others from the western half of Montcalm County and the northeast corner of Kent County, Michigan. This area is characterized by rapidly rising numbers of people whose incomes are below 200% of the poverty level. The shutdown of Greenville's largest manufacturer and layoffs by other area employers have contributed to this financial situation.

All of Montcalm County's low income population are designated as a Medically Underserved Population and the County has Health Professions Shortage Area Designations for primary medical care, dental care and mental health care. Parts of Kent County are designated as MUP and HPSA.

The Program will educate staff in the hospital and staff in the Montcalm Area Health Center regarding the improvement in preventive and chronic disease care that is possible if certain patients, including Medicaid enrollees, can be diverted from using the emergency room as their regular place of care to the FQHC. Systems will be developed so that staff can easily refer patients with non-emergent conditions for immediate care or for follow up care from the emergency room to the Montcalm Area Health Center. Patients will be diverted to care at the FQHC through community marketing efforts intended to help them seek care appropriately when the ER is not needed, through hospital telephone triage and through direct referral of those who do come in to the emergency room.

Immediate goals of the program include:
A. To reduce visits to the ER for medical services to a level of 25 per hundred or a 10% reduction from the current level, whichever is lower.
B. To reduce visits to the ER for dental services by 10%.
C. To reduce visits to the ER for mental health/ substance abuse services by 10%.
D. To establish health care homes for a minimum of 1,000 individuals.

Subsequent objectives will delve further into the specific outcomes of the care received at the Montcalm Area Health Center, including emphasis on improved preventive maintenance in the areas of diabetes, asthma, depression, cancer and cardiovascular care. Improvements in these measures will also be evaluated in terms of their subsequent reduction of inpatient use and cost savings. The program is being developed as a model which has the advantage of starting with a newly started FQHC, but subsequent year activities are expected to include the spread of this diversion model to the more heavily populated Grand Rapids area. We are requesting $250,000 to meet the outcomes in this proposal.

Statement of Preference

Montcalm County's low income population was designated as a Medically Underserved Population in 2005. The entire County also is designated as a Health Professions Shortage Area for mental health (score: 13) and its low income population is designated as HPSA for dental services (score: 14) and primary care physician services. The Program is seeking an applicant preference on the basis of these designations.

Project Narrative

Statement of Project Need

The Montcalm Area Health Center's diversion program is intended to be a project submitted as part of the State of Michigan proposal for establishment of alternative non-emergency services providers. The Greenville area has suffered substantial increases in uninsured patients due to the shut down of the Electrolux plant as well as other local support businesses. The recently released US Census – ACS survey indicates a 49,211 increase in the number of Kent County individuals with incomes below 200% of the poverty level between 1999 and 2006. This is an increase from 23.5% of the population to 30.8% who are low income in just six years. The census update information is not yet available for Montcalm where the majority of the program's patients reside, but employment losses suggest similar income declines.

Substantial increases in the number of those on Medicaid and the number of uninsured comes at a time when several local physicians have stopped accepting Medicaid or have limited those they see on Medicaid to current patients. Spectrum- United Memorial Hospital in Greenville has had over 8,700 emergency room visits in the past year. While these numbers are far smaller than Spectrum's Grand Rapids operations (161,431 visits), the number, timing and payer mix for these visits results in patients – particularly low-income patients – not receiving primary care services in the most appropriate manner, nor with optimal continuity. The State's rate for Medicaid ER visits is 35.7 per 100 (2003-2004). The ER visit rate is expected to rise as the numbers of those who have exhausted benefits after the plant shutdowns begin to find their way to Medicaid coverage. Analysis of the national Community Tracking Study (Cunningham, 2006), which includes a focus on information from a community nearby to Greenville (Lansing, MI) suggest that Medicaid enrollees may have emergency room usage rates that are higher than

average. The report also suggests that in communities where the access options for primary care services are constrained or access is delayed, the rate may be unacceptably high and that some patients may form a preference for the hospital ED as a normal place of care.

These developments in the economy and the physician limitations have spurred the development of Montcalm Area Health Center, in collaboration with area hospitals and the Mid Michigan Health Department in Greenville. This FQHC – Montcalm Area Health Center - will be in full operation, providing outpatient medical, dental and mental health services by 11/1/07. Among the goals of Cherry Street/ Montcalm Area Health Center in its current operations is the establishment of a health care home for its patients that integrate the health services available at the FQHC as well as providing navigation to other related sources of assistance such as inpatient hospital care, extensive mental health services, specialty physician care, dietary services, etc.

The ER diversion process will begin with extensive marketing to community residents (including Medicaid patients) on the appropriate use of the ER and on the use of Montcalm Area Health Center as an alternative "health care home". The community of focus will be residents of the western half of Montcalm County and Oakfield and Spencer townships in Kent County. To the extent permissible, more targeted marketing of Medicaid patients will be done through the Department of Human Services office, with initial application material distribution and mailings to current enrollees. An agreement is also being processed for Montcalm Area Health Center to accept enrollees of the Mid- Michigan Health Plan (multi-county coverage plan for low income, uninsured people).

When patients arrive at the hospital, they will be provided with media materials that will stress the importance of long term continuity of care and preventive care, introduce the

possibility of accessing the Montcalm Area Health Center through their current ER visit and prepare them for the process of receiving care at the FQHC.

Hospital ER triage staff will develop specific protocols for telephone triage and for patients directly accessing the ER. These protocols will: 1) determine which patients should be referred to Montcalm Area Health Center via initial phone conversation, 2) which patients, upon initial assessment at ER should be made aware of Montcalm Area Health Center as an option for care (three block away), 3) which patients upon presentation at ER should be treated and referred to Montcalm Area Health Center for follow up and 4) which patients should be treated at the ER and either be admitted or followed up at the hospital. These decisions will be based on established national protocols, but need to be adjusted for local availability of various primary (e.g. general medical, dental, mental health services) and specialty services, some of which may be available at the hospital and some at other facilities.

Both the hospital and Montcalm Area Health Center will be using the same electronic medical records platform. This Cerner system supports software most relevant to the ambulatory care environment (Cerner – Powerworks) as well as software more relevant to the emergency room and inpatient care. “Permissions” are being developed that will allow electronic access to the specific patient information needed to provide continuity of care and easy registration and processing. The exchange of information may, most often flow from the hospital ER to Montcalm Area Health Center, but sometimes in the opposite direction, and will also include information from other peripheral sources such as laboratories and radiology. This is being developed with careful regard to the regulations of HIPAA. All of this is part of a larger Regional Health Information Organization that is being developed for the sharing of information throughout West Michigan.

Scheduling priority systems will be developed for patients referred to the FQHC for contemporaneous care such that the patient will be assured that the care received at the FQHC can be accessed with a level of convenience that is equal to or better than presenting, unscheduled at the ER. Based on the total number of number of people presenting with various levels of acuity last year in the ER, we estimate that about 1,000 visits can be diverted to Montcalm Area Health Center (plus as many as 2.5 times that number of visits for follow-up and other subsequent care). Planning for the diverted visits will require setting aside specific time slots for an average of four medical visits per day, one dental visit and one mental health visit. Prior to seeing the health care provider the health education process, which was begun at the hospital ER, will continue. The emphasis of printed materials and discussion will be on preventive care, access to non- medical services, treatment of chronic disease, continuity of service and the enhancement of the quality of life that service delivery through the Montcalm Area Health Center could contribute. After the initial FQHC visit, follow-up will be done to assure that patients carry through on a plan of treatment and health maintenance. A similar follow-up pilot project, carried out by AmeriCorps members at the agency's Grand Rapids based clinics, showed the most dramatic patient care behavior change that the FQHC has yet recorded.

A system will be developed so that patients, who present at the ER, can be tracked regarding whether or not they followed through on a referral and what the results of that referral were in terms of the type of service that they accessed. This will also serve as a means of contacting patients for three and six month follow-ups on their satisfaction with access to care (including those who did not follow through on the referrals).

Project Justification

Patients who present at the emergency room for care that could be handled on a non-emergent basis have a need for medical services, but often also for dental or mental health services. Providing a health care home for them serves the needs of the patients, the hospital, Montcalm Area Health Center and the Medicaid system.

Patients' needs are served because care provided through Montcalm Area Health Center will be more appropriate and comprehensive; it will deal with problems in the context of total health and with the patient as a member of a family whose health care needs may bear a resemblance to those of the presenting patient. The context of the Montcalm Area Health Center visit is patient education that leads to the belief that most health care access should be continuous, preventive and oriented towards improvement of health - not episodic and limited to the amelioration of acute problems. This may be a significant change in orientation for those who - by reason of non- acceptance of Medicaid by local physicians or through lack of financial resources – have learned that the ER may be the only place to reasonably access care.

For the hospital, efficiency in the use of its ER is created, leaving ER resources available for those who need emergency care. It also creates a long term habit among patients of using the ER appropriately.

Although Cherry Street Health Services, the parent agency of Montcalm Area Health Center, is firmly established in its Grand Rapids locations and well integrated into a larger network of care, it will just be establishing its presence in Greenville in November of 2007. It will need to clarify to potential patients that its emphasis is on the specific needs of low income patients – those who are uninsured and those on Medicaid. Without a program that refers people to Montcalm Area Health Center to establish a health care home, the process of establishing a

fully staffed and fully scheduled health center would take longer and the distinctions between using the ER appropriately vs. using the FQHC would take longer to teach.

The Medicaid program will realize savings in this demonstration project as well. A recent study of Michigan FQHC Medicaid services shows that when Medicaid patients' health care usage in an FQHC is compared to those with Medicaid who seek care elsewhere, the total savings to the Medicaid program is about 30%. In a recent 12 month period the FQHCs saved the State Medicaid program about $50 million according to An Evaluation of the Cost Effectiveness of Federally Qualified Health Centers Operating in Michigan report. Much of the savings was related to a reduced use of emergency rooms. Some of these savings is a result of dealing comprehensively and aggressively with patients' health care needs using preventive and other outpatient care approaches.

Although the focus of this ER diversion project in the first year is on a rural hospital of moderate size and an FQHC that is only starting to build its patient load, it is the intent for the project to serve as a model for diversion in an environment in which the development, systems, and participant efforts offer the possibility of a complete transformation in the way that patients access care.

Discussion has begun on expanding second year efforts to the Grand Rapids urban area. Spectrum Health System's downtown Grand Rapids hospital provides approximately 15 times as many ER visits per year as the Spectrum Health United Memorial hospital in Greenville. Challenges to diverting care and providing a high quality, accessible alternative are more complex in that environment. Yet the potential for improved access, ER system efficiency and financial savings would be even greater there. Beginning the project in Greenville will leverage the benefits of a smaller scale with the established clinical and RHIO relationships between

Cherry Street Health Services and Spectrum Health to assure maximum benefit both in Greenville and in subsequent spread of the diversion system.

Project Goals and Outcomes

A. **To reduce visits to the ER for medical services to a level of 25 per hundred or a 10% reduction from the current level, whichever is lower.**

Information on the ER visit rate per hundred is not yet available for the sub county level in Montcalm or Kent Counties, but with the use of certain assumptions, a figure can be estimated. Twenty-five per hundred is consistent with the levels in the above referenced study for "Low ED use communities." The 10% reduction rate is approximately equal to the categories of acuity and payer mix that we feel is realistic to divert, based on historic acuity trends.

B. **To reduce visits to the ER for dental services by 10%.**

Available information needs to be further analyzed to be sure of current baseline levels for dental ER visits.

C. **To reduce visits to the ER for mental health/ substance abuse services by 10%.**

Available information needs to be further analyzed to be sure of current baseline levels for behavioral health ER visits.

D. **To establish health care homes for a minimum of 1,000 individuals.**

The initial establishment of a health care home will be defined as either 1) a visit or series of visits to the Montcalm Area Health Center by a patient who has an acute care problem and has not been previously seen at the FQHC. The assumption is that these individuals would have had a high likelihood of seeking care at the ER except that community marketing efforts steered them towards use of Montcalm Area Health Center, or 2) a successful direct diversion of

a patient who presents at the hospital ER and then subsequently accepts and keeps an appointment at Montcalm Area Health Center (or at some other physician's office).

There are other programmatic aims that are being assessed that deal with the extent to which those who have been diverted are consistently relying on Montcalm Area Health Center for primary care, the extent to which they rely on Montcalm Area Health Center for related non-medical care services (dental, mental health) and the extent to which patients follow through on care in the FQHC chronic care model for diabetes, asthma, depression, cancer and cardiovascular care. These three areas are, however, more difficult to track, more specific to subgroups of the patient who have been diverted or more difficult to attribute specifically to the ER diversion project. These areas may become specific goals of the project in successive years.

Estimate of Impact to Beneficiaries

In the first year, Montcalm Area Health Center's ER diversion program will directly affect about 1,000 residents of western Montcalm County and northeastern Kent County, Michigan. Most of those will be patients who are either concurrently diverted to care at the FQHC or are diverted by telephone triage in lieu of an ER visit. Some, however, will be people who – based on marketing in the community - call Montcalm Area Health Center for appointments when they might otherwise have gone to the ER. Ultimately, the benefit will be felt by a much larger number of FQHC patients. That is because currently the uninsured and those on Medicaid in the Greenville area have few choices but to seek care at the emergency room, whether their need is emergent or not. If Montcalm Area Health Center services can be offered in a way that is convenient and convinces these patients that the FQHC is the best choice for their routine preventive needs, we can expect that, by word of mouth, the perception of appropriate access options will change. The provision of comprehensive care and specific treatment

protocols for chronic care treatment should also have the effect of reducing the need for ER services.

Description of the Magnitude of the Impact to Medicaid

Of the 1,000 people expected to be diverted from the ER, it is anticipated that approximately 400 will be covered by Medicaid. This estimate is based on the number of Medicaid patients who currently use the ER for low acuity issues and historical payer mix patterns. The weighted cost of level 1 and 2 visits, that are most likely to be diverted, averages $198 and reimbursement to the FQHC for Medicaid averages $141, for an initial Medicaid savings of $22,800. If we assume that those diverted will seek another 2.5 encounters of care per year from Montcalm Area Health Center instead of going to the ER, total savings would be $79,800. However, a substantial amount of additional savings will result from inpatient stays that will be avoided by the provision of appropriate chronic disease management at Montcalm Area Health Center. A recent study of Michigan's FQHC Medicaid patients indicated as much as a 30% overall cost savings when compared to non-FQHC sources of care.

Description of the Sustainability of the Project

Montcalm Area Health Center will open in November, 2007 and will initially serve patients without benefit of the full FQHC Medicaid rate. Approval for the FQHC rate generally takes about six months. With a new section 330 Community Health Center grant, this lag in full reimbursement might normally be acceptable because the number of people to be served in the first few months would build up only gradually. However, with the referral of 1,000 patients over the course of the year from ER diversion, the patient load and associated costs will build up much faster, necessitating ER diversion funding support. As Montcalm Area Health Center builds up a full patient load and builds the internal efficiencies of a more mature health center it

will also be building a patient base that has a higher percentage of Medicaid patients than would have been the case without the ER diversion program. Electronic data exchange development takes place in the first few months of the project and is a non-recurring cost. The amount of nurse/ health educator time needed to educate staff and to educate patients is gradually reduced after the first year. Most of the costs of the Montcalm Area Health Center ER diversion process can be absorbed through program efficiency and Medicaid reimbursement after the first year. However, it is the program's intent to spread this model for use in the Grand Rapids urban area. In that setting the data exchange will have already been developed, but the total volume of patients potentially served would be much larger.

Spectrum - United Memorial Hospital will also have staff involved in the marketing and triage of this alternative to ER care. Initial marketing will attempt to makes sure that as many adults in the community (western half of Montcalm County and two townships in Kent County) know about the FQHC as an alternative to inappropriate ER use as possible. Later marketing costs will be more limited. Staff involved in triage at the hospital will initially be involved in protocol development and implementation that assures that diversion is used appropriately, as well as the training of ER staff who will be involved in determining which patients should be diverted and in making the referral and explaining the referral and its purpose to patients. After the term of the grant, the triage training responsibilities will be reduced or at least integrated into the normal training routines for the ER department.

Evaluation Plan

Evaluation measurements that will be concentrated on first are the level of reduction in the ER use rates for: 1) Medical services (10% or 25 visits/100), 2) Dental (10%), 3) Mental health (10%). For dental and mental health services particularly, some additional baseline

information must be collected before these reductions can be reasonably measured. The changes in ER use will be evaluated on a quarterly basis.

Ultimately, it is critical to evaluate the value that patients (and payers) receive as a result of choosing services from an alternative provider. The Montcalm Area Health Center has an information system for tracking and evaluating chronic care treatment in the areas of diabetes, asthma, depression, cancer and cardiovascular care. Information from this system will form the basis for the templates being developed in the electronic medical records system (Cerner – Powerworks). By the end of the first year of the program this system will give information specific to the diverted population that will be helpful in determining changes in patterns of care for those with chronic disease. Additionally, information about such areas as reductions in asthma emergencies and of inpatient visits will yield dollar figures that can provide estimates of Medicaid inpatient savings.

A survey of patients who were diverted will be made regarding their satisfaction with access to primary care services three months and six months after ER diversion vs. prior to ER diversion. Use of the Press-Ganey satisfaction survey system currently in use both in the Spectrum Hospital system and at Cherry Street Health Services, will give us detailed information on the comparability in satisfaction scores between the diverted population and other groups.

Description of Project Implementation Readiness

Montcalm Area Health Center's ER diversion program is the result of three years of discussion by two Montcalm County advisory bodies which were formed to assure optimal access to primary care preventive services and to find a solution to more optimal functioning of the hospital's emergency room services. These groups included representatives from hospitals, a federally qualified health center, the mental health and substance abuse coordinating agency, the

local health department and a number of social service agencies. More recently, discussions have been held with a number of Montcalm area dentists as well. Consequently, as planning for the Montcalm Area Health Center progressed, diversion of hospital ER visits was planned, in the context of providing holistic, continuous care at the FQHC. The lead up processes to opening the Montcalm Area Health Center such as building procurement, renovations, systems flow planning, records transfer system planning and recruitment of staff are nearly completed and are on schedule for the November first opening. Cherry Street Health Services' experience in opening 11 other sites in the past several years, as well as stable management of Spectrum – United Memorial's emergency room and other hospital services will assure that both parties are able to further develop the patient and staff education program, triage protocols, referral connections, electronic medical record transfer systems and other aspects of this ER diversion service that are essential to improving the quality of health care for low income patients.

Budget

ER Diversion Grant
$250,000

Salaries:	FTE	Rate		Total
United Memorial Hospital staff:				
BSN/Health Educator	1	$30	per hr	62,400
Referral Specialist	0.5	$16	per hr	16,640
Cherry Street Health Services staff:				
BSN/Health Educator	1	$30		62,400
Receptionist	0.5	$15		15,600
Physician	0.06	$65		7,176
Medical Assistant	0.06	$15		1,872
Dentist	0.03	$50		3,120
Dental Assistant	0.03	$15		936
Social Worker- Masters Level	0.03	$30		1,872
Total Salaries				172,016
Fringe Benefits			28%	48,164

Supplies:	Amount	Cost ea		
evaluation/patient satisfaction surveys	4,000			4,000
Patient Ed Brochures and Materials	2,320	1		2,320
Supplies- Misc				1,500
Printers for EMR	1,000	2		2,000
Software for tablet P.C's	1,000	8		8,000
Tablet P.C.'s for EMR including docking station, power cord and case	1,500	8		12,000
Total Supplies				29,820

Grand Total, All Expenses 250,000