

ChristianaCare MR-Guided Focused Ultrasound

Certificate of Public Review

Delaware Health Resources Board Proposal

December 14, 2023



About ChristianaCare

Nonprofit academic health system, serving Delaware, Maryland, Pennsylvania and New Jersey. Delaware's largest private employer and a Top 10 Philadelphia area employer.

Acute Care

- Three hospitals and a freestanding emergency department.
- Level I trauma center.
- Level III neonatal intensive care unit.
- Comprehensive stroke center.
- Regional centers of excellence: neurosciences, heart & vascular care, cancer care and women's and children's health.

Research & Innovation

- Gene Editing Institute.
- Health & Technology Innovation Center.
- CareVio virtual care platform.
- Institute for Research on Equity and Community Health.

Community Care

- Primary and specialty care.
- Home health care.
- Urgent care centers.
- Community health.
- Center for Virtual Health.

More than
13,000
Caregivers

More than
370
Residents &
Fellows



OUR VISION

**CREATING
HEALTH
TOGETHER
SO EVERY
PERSON CAN
*flourish***





ChristianaCare Neurology Specialists is the largest and most comprehensive neurology practice in Delaware.



The Clinical Challenge: Essential Tremor & Parkinson's Disease

- A neurological condition that includes involuntary shaking or trembling movements in one or more parts of the body.
- Can make it hard to do daily life tasks and can lead to disability.
- Multiple causes, including Parkinson's Disease and genetics. Most commonly affects older adults.
- Affects approximately 1% of the population overall and 5% of adults age 60+.
- Will increasingly impact Delawareans as population ages.



Current Treatment Options for Essential Tremor & Parkinson's Disease

	Medication	Deep-Brain Stimulation	MR-Guided Ultrasound
Available in Delaware?	Yes.	No.	No.
PROs	<ul style="list-style-type: none"> • Non-invasive. • Widely available. 	<ul style="list-style-type: none"> • Effective for patients who do not respond to medications. 	<ul style="list-style-type: none"> • Non-invasive. • Instant results. • Less costly than Deep-Brain Stimulation.
CONs	<ul style="list-style-type: none"> • Diminishing returns over time: For many patients, medications can control their symptoms initially but gradually become less effective. 	<ul style="list-style-type: none"> • Invasive surgery. • Most costly option. • Not widely available. Currently closest are in Baltimore and Philadelphia. 	<ul style="list-style-type: none"> • Not widely available. Currently closest are in Baltimore and Philadelphia.

Provider-prescribed medication is currently the **only option** available in Delaware, and this often has limited efficacy.

ChristianaCare would like to offer a **new treatment option** for Delaware.

NEW TREATMENT OPTION

MR-Guided Focused Ultrasound

ChristianaCare seeks to purchase an MR-Guided Focused Ultrasound to provide a new treatment option in Delaware for patients with essential tremor and tremors from Parkinson's disease.

- Anticipating 400 patients served over the next three years.
- Utilizing ChristianaCare Neurologists and contracting Delaware Neurosurgery Group to provide patient treatment.

This treatment will be the only MR-guided Focused Ultrasound option for patients in the State of Delaware.



Conformity with Health Resources Management Plan

Objectives of MR-Guided Focused Ultrasound

Improve Health Outcomes

Reduce tremor immediately, with shorter recovery time, lower risk of side effects and lower associated health care expenses compared to surgical alternatives.

Health Care Quality and Patient Experience

Improve the patient experience and quality of life through this outpatient treatment.

Provide High-Quality Health Care

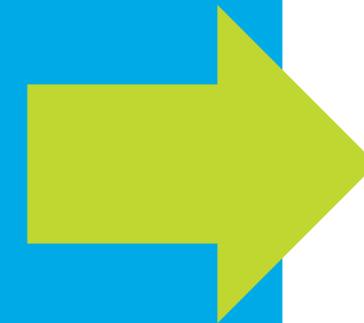
Treatment option that is readily available and accessible in our patients' local community.

Clinical Impact

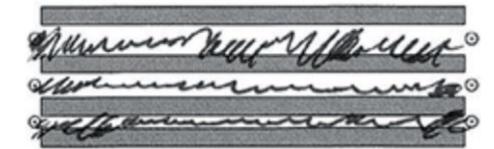
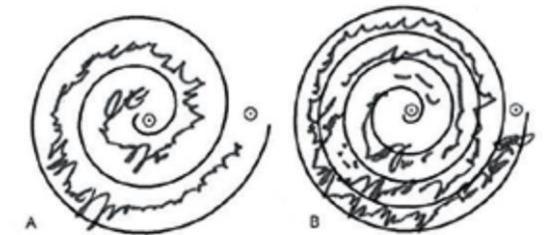
Improved patient experience and health outcomes:

- An alternative to medication or surgical intervention.
- Shorter recovery time.
- Reduced risk of infection.
- Immediate and significant reduction in tremor.

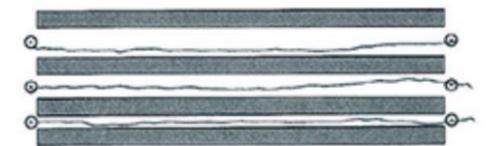
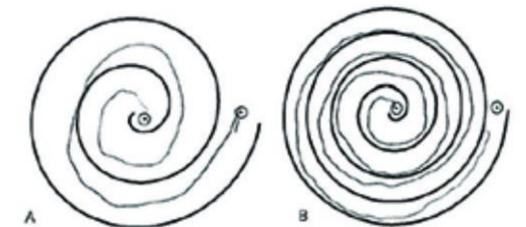
Reduction of patients' dependence on caregivers to assist with activities of daily living.



Patient writing before and after treatment*



BEFORE



AFTER

Improving Access for Delawareans

Distance/Access

- ✓ Will be the only MR-Guided Focused Ultrasound in Delaware. Currently Penn Medicine is the only hospital within 50 miles to offer this service.

Reducing travel time



Reducing long-wait times



Physician engagement



- ✓ Access point for community providers.

Approved service



- ✓ Specifically, this treatment is an approved covered service with Medicare in all 50 states, Aetna, CIGNA, and Anthem plans, and 80% of Blue Cross Blue Shield plans – including Highmark BCBS



Nearby locations (Drive time from ChristianaCare, Newark Campus)

Penn Medicine (50 min)

Univ. of MD Medical Center-Baltimore (1 hour, 17 min)

Hackensack Meridian Health (2 hours, 19 min)

Effect on Health Care Costs and Charges

- The MR-Guided Focused Ultrasound will not materially impact the overall costs and charges of health care to the community.
- This technology will enable physicians in Delaware and throughout the region to refer patients locally to ChristianaCare for the procedure.
- Making this treatment locally available supports improving population health for the community we serve in Delaware, especially elderly and low-income individuals who often face challenges accessing care.

MR-Guided Ultrasound Treatment

Primary consumers of this service are patients residing in Delaware

	Year 1	Year 2	Year 3
MR-Guided Focused Ultrasound for Essential Tremor/Parkinson's Disease	81	122	160

Expected Costs

- **Capital investment of \$2.23M; to be funded through cash reserves**
 - MR-guided Focused Ultrasound equipment.
 - Minor renovations.
- **Year 1 projected revenue is \$1,148,187, and projected operating expense is \$772,732.**
- **Health care cost savings due to reduction in provider-prescribed medication and incidence of surgical intervention have not been quantified.**

Facility and Equipment Design

MR-guided Focused Ultrasound will be located on the ChristianaCare Newark Campus in its existing MRI suite.



Figure 1-3: Exablate Neuro Operator Console Workstation

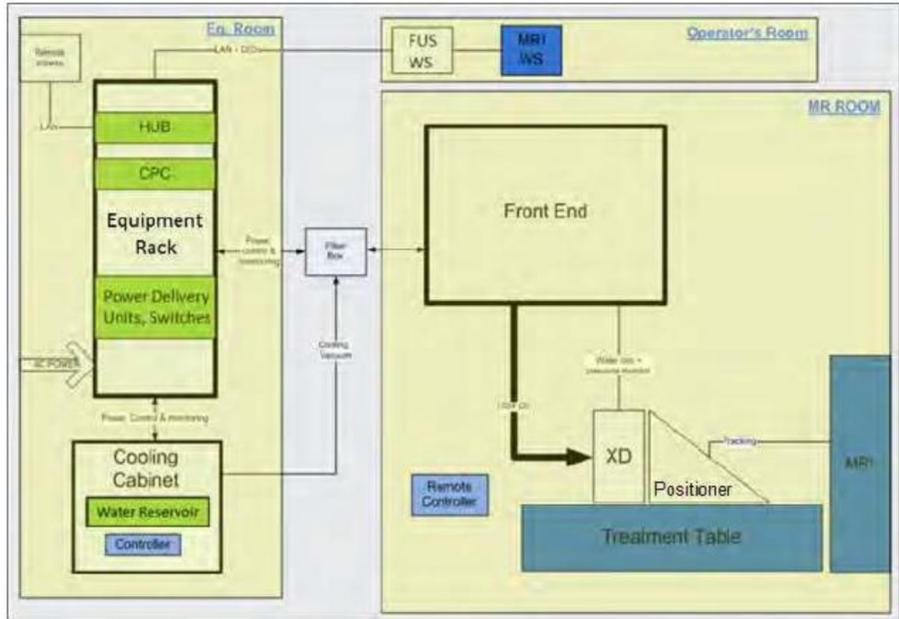


Figure 1-1: Schematic Representing Layout of Type 1.0 System Components In-Site



Figure 1-5: Type 1.0 Treatment Table



Figure 1-11: STC Cart Without (Left) and with (Right) Helmet System

Schedule of Implementation

Pending approval of Certificate of Public Review application

Vendor contract negotiations/contract finalized for purchase	December 2023
MRI room modification and IT work in room	January 2024
Equipment delivery/vendor onsite/equipment acceptance	February 2024
Coordinating, privileging and training/implementation with Neurology and Neurosurgery physicians and staff	February 2024-March 2024
Operationalizing new process and coordinating with imaging department and staff, scheduling first patients	January 2024-March 2024
First patient procedure	April 2024

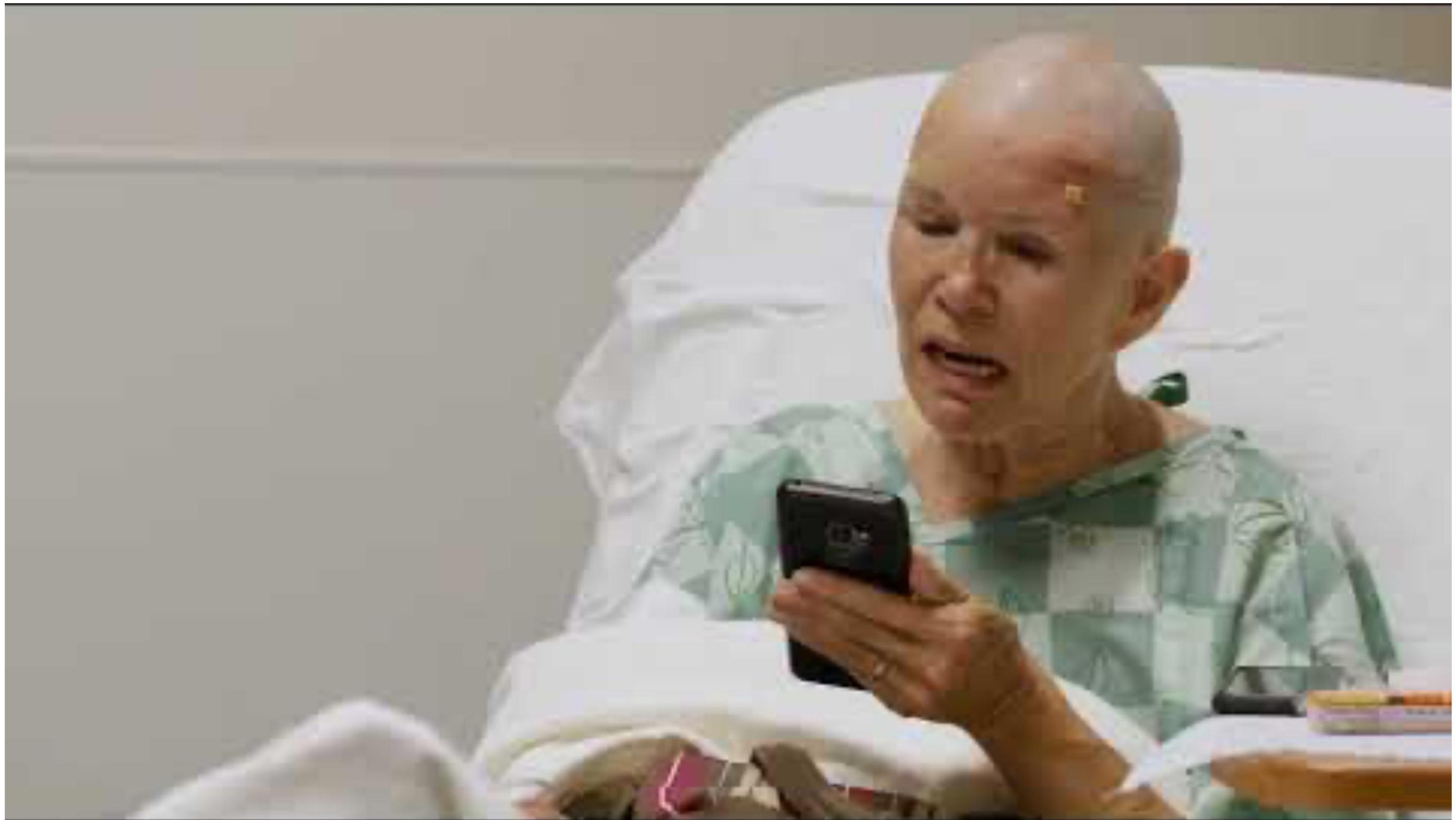
Target Opening Date: April 2024



Thank you.



Appendix



Video demonstrating the impact of MR-Guided Focused Ultrasound treatment on a patient with tremor.

16 Del. Code § 9306 – Review Considerations

Summary

(1) The relationship of the proposal to the Health Resources Management Plan

1. *Narrative and rationale for the proposed project is sound.*
 2. *Relevant certifications and accreditation status are in good standing.*
 3. *Letters in support of the proposal, as well as administrative, clinical and leadership positions have been provided.*
- *Signed participation agreement with DHIN, and is submitting records / accessing data from DHIN for care coordination purposes.*
 - *Appropriate balance in consideration of access, cost, and quality of care issues are seriously embraced in the application.*
 - *the proposal supports access and continuity of care, chronic disease management, use of health information technology and affiliation with the Delaware Health Information Network (DHIN), care coordination and other strategies to facilitate Delaware’s transition to value-based payment models to improve overall health outcomes.*
 - *The proposal, where possible, contributes to the care of the medically indigent.*

Relationship to HRMP
Sound narrative
Certifications included
Letters included

Included, active with DHIN
Included
Supports value-based care
Indigent services as needed

(2) The need of the population for the proposed project;

1. *The proposal demonstrates a clear public need for the service(s) proposed, as well as identifying the population to be served, as well as data-oriented evidence.*
2. *The proposal specifies its plan for care of patients without private insurance coverage, as well as its plan for care of medically underserved populations with the proposed service area.*

Population Need
Population need included
Indigent services as needed

16 Del. Code § 9306 – Review Considerations

Summary (cont.)

(3) The availability of less costly and/or more effective alternatives to the proposal, including alternatives involving the use of resources located outside the State;

- 1. The proposal provides information about alternative providers of the proposed service, referencing the specific providers that now offer the proposed service and the impact of those parties, including financial information indicating whether these alternative providers are more or less costly in the provision of the service.*
- The applicant has taken into account the availability of out-of-state, yet geographically close, health care service resources.*

(4) The relationship of the proposal to the existing health-care delivery system;

- 1. The applicant has described in detail how and where the proposed patient population is currently being served. The applicant has described existing referral patterns in the proposed service area and demonstrated that the proposed project shall not result in an unnecessary duplication of existing or approved health care facilities or services.*
- 2. To ensure appropriate continuity of care, accessibility, and related quality-enhancing considerations, the applicant has provided information regarding the applicant’s established referral arrangements with other providers in the service area. The applicant has described how their past and proposed provision of health services promote a continuum of care in Delaware’s health care system.*
- 3. The applicant has also demonstrated that the proposed project will not negatively impact employment, the diversity of health care providers or patient choice in the defined service area.*

Alternative Options

Alternate options and providers are discussed

Out-of-state providers are illustrated

Existing Health-Care Delivery System

Population described and opportunities for other provider referrals discussed.

Continuum of care is described in the application

No negative impacts to employment are expected

16 Del. Code § 9306 – Review Considerations

Summary (cont.)

(5) The immediate and long-term viability of the proposal in terms of the applicant's access to financial, management and other necessary resources;

- 1. The application has demonstrated the financial feasibility of the proposed project.*
- 2. The applicant has provided proof of all funding or financing sources for the proposal and the dollar amount of each.*

Long-term Viability
The project is financially feasible
The project is self-funded

(6) The anticipated effect of the proposal on the costs of and charges for health care; and

- 1. The applicant has demonstrated how the proposal will impact the financial strength of the health care system in the state. Specifically, the applicant has demonstrated how the proposed project will improve cost-effectiveness of health care services within the service area.*
- 2. The applicant has also demonstrated how the proposal will impact cost and charges to the individual(s) for health services (where applicable).*

Effect on Costs and Health Care Charges
Will alleviate patient wait at alternative providers and patient travel time.
The project will have no aggregate effect on costs for health services

(7) The anticipated effect of the proposal on the quality of health care.

- 1. The applicant has demonstrated how the proposed project will improve quality and accessibility of health care services within the service area, including but not limited to, the provision of or any change in the access to services for Medicaid recipients and indigent persons as well as the impact of providing services to these populations.*

Effect on the Quality of Health Care
This project will provided a needed service to the population without exposing them to the risk of invasive surgery and long hospital stays.

- Note that there is no increase in beds, footprint, or aggregate overhead capital infrastructure.**
- Headcount will increase only for ½ FTE for a non-clinical coordinator.**