| **STAFF REPORT TO THE PUBLIC HEALTH COUNCIL**  **FOR A DETERMINATION OF NEED** | |
| --- | --- |
| Applicant Name | Sturdy Health Foundation, Inc. |
| Applicant Address | 211 Park St. Attleboro, MA 02703 |
| Filing Date | December 23, 2024 |
| Type of DoN Application | Substantial Capital Expenditure |
| Total Value | $81,441,502.00 |
| Project Number | SH-24100710-HE |
| Ten Taxpayer Group | None |
| Community Health Initiative | $4,072,075.10 |
| Staff Recommendation | Approval |
| Public Health Council | April 9, 2025 |
| Project Summary and Regulatory Review  Sturdy Health Foundation, Inc. is filing a Notice of Determination of Need (DoN) with the Department of Public Health (DPH) for the renovation and expansion of the Emergency Department at Sturdy Memorial Hospital, located at 211 Park St. Attleboro, MA 02703. The capital expenditure for the Proposed Project is $81,441,502.00; the Community Health Initiatives (CHI) contribution is $4,072,075.10.  This DoN application falls within the definition of Substantial Capital Expenditure, which is reviewed under the DoN regulation 105 CMR 100.000. The Department must determine that the need exists for a Proposed Project, on the basis of material in the record, where the Applicant makes a clear and convincing demonstration that the Proposed Project meets each Determination of Need Factor set forth within 105 CMR 100.210. This staff report addresses each of the six factors set forth in the regulation. | |

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# Applicant Background and Application Overview

**Sturdy Health Foundation, Inc.**

Sturdy Health Foundation, Inc. is an independent, not-for-profit, community-driven, fully integrated health system that offers hospital-based acute, emergency, and urgent care, in addition to primary and specialty care at 26 medical office locations across Southeastern Massachusetts including Attleboro, North Attleboro, Mansfield, Norton, Plainville, Rehoboth, and Seekonk. The health system is comprised of Sturdy Memorial Hospital (the Hospital), a community hospital, and Study Health Medical Group, the medical offices affiliated with the Hospital.

**Sturdy Memorial Hospital**

The Hospital is a 128-bed community hospital in Attleboro, Massachusetts that offers the community emergency care, labor and delivery services, surgical services, cancer care and a variety of clinical services on an outpatient basis. The Hospital serves a population base of over 160,000 in suburban communities of Boston and Providence.

**Proposed Project**

The Proposed Project will expand the Emergency Department (ED) footprint at the Hospital through new construction of a 60,552 Gross Square Feet (GSF) space that will include:

1. 50 private treatment rooms, usable for both adult and pediatric needs, that include 36 general ED rooms, 12 behavioral health rooms, and two trauma rooms.
2. Two airborne infection isolation rooms with dedicated bathrooms and anterooms.
3. Four triage bays
4. Dedicated administrative space for clinical and ancillary staff
5. A registration area dedicated to ED patients as well as space for radiology and imaging to be located within the ED
6. Relocation of one CT unit from the imaging department to the new ED (1:1 replacement unit)
7. Wider hallways to improve patient transfers and dedicated storage space for stretchers, code carts, and linen carts to keep the hallways clear.
8. Table 1 provides an overview of the Proposed Project changes.

Table 1: Sturdy Memorial Hospital’s ED Bed Composition

|  | **Current** | **Proposed Project** | **Net New** |
| --- | --- | --- | --- |
| **Trauma** | **1** | **2** | **1** |
| **Triage** | **2** | **4** | **2** |
| **Behavioral Health** | **5** | **12** | **7** |
| **Flex Space/ Vertical Treatment** | **5** | **0** | **-5** |
| **Private Rooms** | **16** | **36** | **20** |
| **Hallway Stretchers[[1]](#footnote-2)** | **10** | **12** | **2** |
| **Curtained Bays** | **9** | **0** | **-9** |
| **Total** | **48** | **66** | **18** |

The Applicant expects no significant changes to its Payer Mix as a result of the Proposed Project. The Applicant provides data, detailed in the next section, to support their assertion that the Hospital ED has been operating over capacity, and the service area would benefit from access to an expanded ED.

# Factor 1

In this section, we assess if the Applicant has sufficiently addressed Patient Panel need, public health value, competitiveness and cost containment, as well as community engagement for the expansion of the ED.

# Patient Panel[[2]](#footnote-3)

Table 2 below shows the Patient Panel and patient populations from Fiscal Year (FY)2021 through FY2024. The overall number of unique patients visiting the Hospital grew by 7.5% during that timeframe, while the number of unique patients visiting the ED increased by 17% during the same timeframe.

Table 2: Overview of Sturdy Memorial Hospital Patient Volume

| **System/ Hospital** | **FY2021** | **FY2022** | **FY2023** | **FY2024** |
| --- | --- | --- | --- | --- |
| Sturdy Health Overall Patient Panel | 95,176 | 98,950 | 100,721 | 101,473 |
| Sturdy Memorial Hospital | 75,952 | 80,700 | 81,046 | 81,639 |
| Sturdy Memorial Hospital Emergency Department | 29,109 | 31,855 | 33,342 | 34,097 |

Sturdy Health’s Patient Panel indicates the top 10 towns of patient origin are: Attleboro, North Attleboro, Norton, Mansfield, Plainville, Foxboro, Rehoboth, Seekonk, Wrentham, and Pawtucket (Rhode Island). These towns coincide with the top 10 zip codes served by both the Hospital and the ED. Table 3 shows the demographic characteristics of the Sturdy Health Patient Panel, Sturdy Memorial Hospital patient populations, and the Sturdy Emergency Department population. Staff notes the following observations:

* **Age-** Patients aged 18-45 were the largest patient cohort across all three Sturdy Patient Panel and Hospital Patient Populations in Table 3 at greater than 30% of unique patients.
* **Race/Ethnicity-** The vast majority (over 80%) of the patients across all three populations in Table 3 identify as white, and Not Hispanic/Latino. This is consistent with the demographics of Bristol County, as reported by the 2022 US Census.[[3]](#endnote-2) The Hospital ED served a larger percentage of Black/African American patients (10%) than the system-wide Patient Panel or the Hospital patient population (both ~6%).
* **Payer Mix-** The Hospital ED served a larger percentage of Medicaid/Medicare patients (24.6%) than the system wide Patient Panel and Hospital Patient Population (both ~17%).

Table 3: Sturdy Patient Panel and Hospital Patient Populations Demographic Profile, FY2024

|  | **Sturdy Health Overall Patient Panel** | **Sturdy Memorial Hospital Patient Population** | **Hospital ED Patient Population** |
| --- | --- | --- | --- |
| **Total Unique Patients** | 101,473 | 81,639 | 34,097 |
| **Gender** |  |  |  |
| Female | 55.83% | 56.73% | 52.49% |
| Male | 44.15% | 43.25% | 47.50% |
| Other[[4]](#footnote-4) | 0.03% | 0.02% | 0.01% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |
| **Age** |  |  |  |
| 0 to 17 | 15.72% | 12.57% | 12.33% |
| 18 to 45 | 33.55% | 33.90% | 37.96% |
| 46 to 64 | 27.56% | 28.85% | 24.19% |
| 65 and Older | 23.17% | 24.68% | 25.52% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |
| **Race** |  |  |  |
| White | 84.15% | 85.12% | 82.67% |
| Black or African American | 6.27% | 6.77% | 10.32% |
| American Indian or Alaska Native | 0.14% | 0.14% | 0.13% |
| Asian | 3.27% | 3.31% | 2.70% |
| Native Hawaiian or Other Pacific Islander | 0.06% | 0.06% | 0.07% |
| Other | 2.55% | 2.51% | 3.50% |
| Unknown | 3.17% | 1.88% | 0.50% |
| Patient Declined | 0.39% | 0.21% | 0.11% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |
| **Ethnicity** |  |  |  |
| Hispanic/Latino | 6.17% | 6.65% | 9.39% |
| Not Hispanic/Latino | 86.03% | 88.53% | 89.13% |
| Patient Declined | 0.71% | 0.49% | 0.22% |
| Unknown | 6.71% | 3.97% | 0.94% |
| Other | 0.38% | 0.36% | 0.32% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |
| **Payer Mix** |  |  |  |
| Commercial PPO/Indemnity | 24.40% | 22.50% | 25.1% |
| Commercial HMO/POS | 8.20% | 7.40% | 7.00% |
| MassHealth | 4.20% | 4.70% | 7.9% |
| Medicaid Managed | 13.40% | 12.70% | 16.7% |
| Commercial Medicare | 16.80% | 17.60% | 13.9% |
| Medicare FFS | 30.20% | 31.80% | 23.4% |
| All Other | 2.90% | 3.30% | 6.0% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |

# Factor 1: a) Patient Panel Need

In this section, staff assesses if the Applicant has sufficiently addressed Patient Panel need for the Proposed Project. The Applicant attributes Patient Panel need for the Proposed Project to the following:

1. Emergency Department Operating Over Capacity
2. Insufficient Ligature Free Rooms to Meet Patient Behavioral Health Needs
3. Projected Growth in ED Utilization
4. Limitations of Current ED Layout
5. ***Emergency Department Operating Over Capacity***

First built in 1979 and last renovated in 2003, the Hospital’s ED was designed to accommodate a maximum of 45,000 annual visits. However, the Hospital’s ED utilization has consistently risen over the last four years as demonstrated in Table 4. Most recently, in FY2024, it saw 52,160 visits, 15% more visits than intended when the ED was designed.

Table 4 – Historical Sturdy Memorial Hospital Emergency Department Volume

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **FY2021** | **FY2022** | **FY2023** | **FY2024** | **Change**  **2021-2024** |
| ED Visits | 44,893 | 48,877 | 51,106 | 52,160 | 16.2% |

As illustrated in Table 4 above, the Hospital’s ED has been treating a greater number of patients than the space was designed to accommodate for several years. The Applicant notes that the majority of patients visiting the ED presented with a moderate level of acuity on the Emergency Severity Index (ESI)[[5]](#footnote-5). Table 5 below details the historical composition of patient severity.

Table 5 – Historical Sturdy Memorial Emergency Department Visit Acuity

|  | **FY2021[[6]](#footnote-6)** | **FY2022** | **FY2023** | **FY2024** |
| --- | --- | --- | --- | --- |
| ESI Level 1 | 0.4% | 0.3% | 0.4% | 0.4% |
| ESI Level 2 | 23.80% | 21.20% | 21.90% | 20.90% |
| ESI Level 3 | 51.60% | 52.40% | 53.20% | 54.50% |
| ESI Level 4 | 21.10% | 23.10% | 21.70% | 21.70% |
| ESI Level 5 | 1.6% | 1.8% | 1.7% | 1.7% |

The Hospital has implemented steps to facilitate patients receiving care in the right setting. These steps included easy-to-understand information on its website instructing patients on where to go for their condition or concern, patient education on appropriate uses of emergency care versus urgent care services and regular communications via Facebook posts and patient portal messages on this topic. While these efforts have aided in diverting low acuity patients to the primary or urgent care setting, the ED continues to see a steady rise in moderate acuity patient volume seeking care in the ED, as illustrated by the percentages of Level 3 patients in Table 5 above.

According to the Applicant, the mismatch between the size of the ED and the volume of patients frequently results in overcrowding, delayed treatment or no treatment at all as patients choose to leave without being seen, and strained resources. Table 6 provides ED Utilization details, showing increases in wait times, medical boarding, and the percentage of patients who left without being seen.

Table 6 – Historical Sturdy Memorial Hospital Emergency Department Utilization

|  | **FY2021** | **FY2022** | **FY2023** | **FY2024** |
| --- | --- | --- | --- | --- |
| Annual Visits | 44,893 | 48,877 | 51,106 | 52,160 |
| Wait time in minutes from door to provider | 36.67 | 51.00 | 63.67 | 64.33 |
| Left without being seen (Expressed as Percentage of Annual Visits)[[7]](#footnote-7) | 1.60% | 2.51% | 3.19% | 2.60% |
| Psych boarders[[8]](#footnote-8) | 3,444 | 3,717 | 3,046 | 2,262 |
| Medical boarders[[9]](#footnote-9) | 5,469 | 13,536 | 11,921 | 20,846 |
| Code Help Activations (All Levels) | 92 | 129 | 143 | 47[[10]](#footnote-10) |

With an ED serving more patients than it was built to manage, patients are experiencing increased wait times to be seen by a provider, which corresponds with a mild increase in patients leaving without being seen from FY2021 to FY2024 (as illustrated in Table 6). Without the space and resources provided through the Proposed Project, the Hospital’s patients will continue to experience long wait times (from door to provider) in the ED. The Applicant suggests it is likely that more patients will decide to forego care until their condition worsens, leading to higher cost, treatment (covered in more detail in factor 1F). The Applicant asserts that creating sufficient capacity within the Hospital’s ED will improve wait times and care delivery.

1. ***Insufficient Ligature Free Rooms to Meet Behavioral Health Needs***

The Proposed Project will significantly increase the ED’s capacity to care for patients experiencing acute behavioral health emergencies. The Hospital has only five ligature free behavioral beds in the ED in a space that is not separate from the rest of the ED. Despite a reduction in overall psych boarding noted in Table 6 (attributed to increased presence of community behavioral health centers, and more timely admissions to inpatient psychiatric beds), the Applicant notes there are many days that the Hospital still treats more than five behavioral health patients at a time. This can lead to placement in hallway stretchers, which may increase agitation for behavioral health patients in crisis and may infringe on patient privacy as treatment-related conversations are completed in the hallway. The Hospital anticipates that the volume of behavioral health patients will increase as the overall volume of ED visits increases. The Hospital concluded that 12 total ligature free behavioral health rooms would provide sufficient capacity based on staffing efficiency. A 12-bed unit will accommodate higher than average census days while also allowing for the most efficient staffing levels and utilization (of up to 6 patients per RN). The unit will be staffed by nurses and mental health technicians to treat, and care for patients with behavioral health needs. Staffing planned for the behavioral health unit supports 2 dedicated RNs staffing the behavioral health area at all times (8.4 dedicated RN FTEs) . Actual daily staffing would depend on volume in the unit and those positions can be covered with cross-trained ED RNs. In addition to the RNs, the behavioral health unit will be staffed at all times with 2 behavioral health/mental health technicians (up to 8.4 FTEs) who can also be crossed trained to cover the behavioral health unit or main ED and would staff the behavioral unit based on actual census. One security officer (4.2 FTEs) would also be located within the unit 24/7.

In response to whether the Hospital would have the ability to serve the increased volume of behavioral health patients through their inpatient beds, the Applicant stated that the Hospital does not currently offer inpatient psychiatric care, but works with other hospitals and providers to find inpatient placements in the community when needed.

The new behavioral health area will be physically separate from the main ED in the Proposed Project, which will allow for both privacy and a less chaotic environment for treatment. The Applicant anticipates that lower environmental agitation could lead to a reduction in physical restraints and employee assaults or injuries. The Applicant asserts that the Proposed Project will create a safer, more therapeutic environment that will also reduce operational costs associated with the use of one-to-one observation aides.

1. ***Projected Increases in ED Utilization***

The Hospital has experienced significant growth across emergency services. Given that the ED has been operating beyond the intended capacity for the past three years with the expectation that the volume will continue to increase, the Proposed Project seeks to right-size the Hospital’s ED to meet the current need for emergency care in the community while allowing for modest growth in future years. Table 7 provides volume projections for the first five years following the opening of the new ED.

Table 7 – Projected Sturdy Memorial Hospital Emergency Department Volume

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Projected Volume** | **FY2028** | **FY2029** | **FY2030** | **FY2031** | **FY2032** |
| ED Visits | 53,160 | 53,410 | 53,660 | 53,910 | 54,160 |

In order to meet the community’s current and projected need for emergency services, the Hospital determined that a total of 50 treatment rooms would be needed (36 private rooms, 12 behavioral health rooms, and 2 trauma rooms). To determine this, the Applicant leveraged the healthcare clinical and capital planning consulting services of The Innova Group[[11]](#footnote-11). Following an in-depth analysis of Sturdy Health’s current state, future market share capture and growth projections from various data sources, The Innova Group leveraged their proprietary analytics process and the Emergency Department Benchmarking Alliance formulas to arrive at the appropriate number of private rooms for the Proposed Project.

The Applicant plans to staff the expanded ED with 96 FTE’s that include RNs, behavioral health technicians, and support staff. The Applicant has established recruitment efforts to attract qualified staff to new positions that include a dedicated Recruitment Manager (RM) for the Emergency Department who sources candidates for all ED positions via Indeed and LinkedIn, ongoing career fairs focused on nursing students at local colleges within Massachusetts and Rhode Island, including the Community College of Rhode Island, Wheaton College, Curry College, and Bristol Community College. The RM also meets with clinical students on these campuses to review Sturdy Health’s new graduate programs, compensation, and benefits. For existing employees, Sturdy Health offers recruitment and retention bonuses to nurses. There is also a referral bonus program for Sturdy Health employees who refer nurses for open positions which has helped with recruitment. Furthermore, Sturdy Health offers a special program for the internal growth of current employees interested in transitioning to the ED. The ED Bridge Program trains existing nurses for a position within the ED and will be an instrumental recruitment tool as additional staffing is needed for the new ED.

Given that the Proposed Project is not expected to achieve completion until 2028, the Hospital shared its strategies to manage capacity in the interim. The Applicant will continue to provide education to patients, providers and the community on when to seek emergency care and when to use primary and/or urgent care, as mentioned previously. In February 2024, the Hospital opened a vertical treatment space to treat patients needing minimal interventions quickly. This has helped move more low-acuity patients through the ED, freeing up resources for higher-acuity patients. The Hospital also implemented point of care testing in the ED for COVID in order to improve diagnosis, treatment, and discharge times.

The addition of private treatment rooms is expected to allow for the timely movement of patients to treatment rooms from the waiting room, which is likely to reduce delays in treatment. The ability to move patients from the waiting room to a treatment room in a timely manner is not only likely to improve care delivery, but to improve the patient experience by providing a private, more comfortable environment during what is usually a stressful time for patients experiencing a medical emergency. Through the addition of the requested rooms, the ED will be able to accommodate current community needs and projected growth in volume consistent with population projections.

1. **Limitations of Current ED Layout**

First built in 1979 and last renovated in 2003, the Hospital’s ED is approximately 15,000 square feet. It contains two triage bays, 31 treatment bays (mostly curtained), and five ligature free behavioral health rooms. The current ED layout has issues with adequate space, patient flow, and efficiency.

1. **Inadequate Space:** The current space is inadequate for the number of patients that are waiting to be triaged. The current ED does not have the space needed for a care team to perform any patient evaluations or provide any initial care, such as vitals, specimen collection, electrocardiograms, medication administration, and other services needed to treat and discharge Level 5 acuity patients who do not require a treatment room. The current ED features only 36 treatment spaces across a combination of private, double, and curtained spaces. Without fully walled private rooms, the majority of patients are not provided with adequate privacy during their evaluation, treatment, and discharge. Space in the ED has also become limited due to the need for ancillary departments to be embedded within the ED. These ancillary staff do not have permanent office space, so conversations with patients and families are often conducted in front of others. The Proposed Project will address the current ED’s insufficient space for triage, as well as for providers and ancillary staff to work. The proposed care team stations will be located in enclosed areas, ensuring adequate privacy as well as adequate space for necessary staff.
2. **Patient Flow:** Currently, the Hospital’s main registration is located within the ED, which not only causes confusion for patients and visitors, but also brings more traffic and congestion to the ED than necessary. The Applicant states that the Proposed Project will improve front-end flow via a large waiting area for both patients and visitors. The entrance will be dedicated to ED patients and will no longer be shared with the Hospital’s main registration. Patients of the ED will be greeted by a Registered Nurse and a registration coordinator to ensure the immediate management of critical complaints. The expanded triage area will include a front-end team of clinical staff members, including an Advanced Practice Nurse (“APRN”), a Registered Nurse (“RN”), and ED Technician (“EDT”) who will be available to triage, manage, and treat lower acuity patients immediately, as well as begin work-ups on higher acuity patients.
3. **Efficiency:** The two trauma rooms within the ED in the Proposed Project will be located near the ambulance bay and the elevators to the helipad, eliminating the need for trauma patients to transverse the entire ED. Currently, ED patients who require x-rays or CT must be transported out of the ED and through the hospital, which requires additional staffing resources and delays diagnosis and treatment. Another design feature of the new ED will be the addition of an imaging suite within the ED. Embedding imaging within the ED will contribute to expedited diagnosis and care pathway determination, contributing to better throughput. Additionally, the new space will provide for improved co-location of hospitalists, ED providers, and nursing alongside case management and the ED pharmacist to facilitate better communications regarding patient care, including medication management, diagnosis, and disposition, and will improve time to determination of appropriate disposition and discharge.

The Applicant asserts that the ED expansion will not only enhance patient privacy and safety but will also streamline operations and reduce wait times. The new ED will significantly enhance patient experience and operational efficiency.

***Analysis***

Staff finds that the Applicant has demonstrated sufficient need for ED expansion to address the growing volume of annual visits to the ED. The Proposed Project will allow the Applicant to meet the current and future increase in the number of patients seeking moderate to high acuity care that cannot be diverted to lower acuity settings. The expansion would allow for greater access to emergency Behavioral Health assessment and treatment in the region, and has the potential to reduce wait times for all ED patients. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1a.

# Factor 1: b) Public Health Value through Improved Health Outcomes and Quality Of Life; Assurances Of Health Equity

In this section, staff will assess if the Proposed Project adds measurable public health value in terms of improved health outcomes and quality of life for the Applicant’s existing Patient Panel, while providing reasonable assurances of health equity.

**Health outcomes and quality of life**

By expanding the ED, the Proposed Project will allow the Hospital to provide a dedicated Behavioral Health unit within the ED, and to improve health outcomes associated with overcrowding.

1. ***Dedicated Behavioral Health Unit***

The Applicant cites literature stating that traditional EDs are not designed for the treatment of patients experiencing acute behavioral health emergencies. The chaos and confined spaces of an ED can be distressing, contribute to a patient’s anxiety, and may worsen the psychiatric symptoms for which the patient is seeking treatment.[[12]](#endnote-3) Compounding the stressors of the ED’s physical environment, the loss of control many patients feel in the ED can result in an escalation of symptoms.[[13]](#endnote-4) As a result, these patients may actually experience worsening symptoms and health outcomes. For behavioral health patients who seek care at the ED, the Applicant noted studies about best practices for EDs to promote a more beneficial experience and improve health outcomes. The first best practice is to create a quiet, calming, dedicated space separate from the main ED.[[14]](#endnote-5) When the goal is to calm the patient, the result is more likely to be a patient who can participate in their immediate treatment.[[15]](#endnote-6) With the expansion of ED behavioral health rooms and space described in the Proposed Project, the Applicant anticipates improvement in outcomes and overall patient experience for those seeking assistance at the ED.

1. ***Impact of Overcrowding on Health Outcomes***

Overcrowding is defined by a high volume of patients compromising the ED’s ability to efficiently manage patient flow because of insufficient resources, with the first and most obvious consequence being an increase in patient wait times.[[16]](#endnote-7) Significant wait times from the time a patient registers to when they are seen can reduce the quality of care provided, increase patient discomfort and dissatisfaction, increase the risk of hospital-acquired infections, and lead to more patients leaving before being seen by a physician. All of these factors contribute to reduced health outcomes.[[17]](#endnote-8) The Applicant cited research showing that patients who leave without being seen are more likely to experience worsening health conditions that result in a subsequent ED visit and hospitalization.[[18]](#endnote-9) Overcrowding frequently results in care being provided in ED hallways, which is associated with higher levels of patient morbidity and mortality.[[19]](#endnote-10) These negative health outcomes are likely a result of monitoring that may not be as consistent or reliable as what is provided in permanent ED beds. The increased capacity described in the Proposed Project will provide the necessary space to allow clinical staff to facilitate ED patients more efficiently from registration to treatment to discharge, which the Applicant asserts will ease overcrowding and improve health outcomes.

To assess the impact of the Proposed Project, the Applicant proposed metrics, as well as metric projections for quality indicators that will measure the impact of the Proposed Project. The measures include patient wait times, left without being seen (“LWBS”) data, and overall lengths of stay. The measures are presented in Appendix I and will be reported to DPH on an annual basis following implementation of the Proposed Project.

***Analysis: Public Health Value: Health Outcomes and Quality of Life***

Staff finds that adding capacity to the ED has the potential to improve health outcomes for the Patient Panel and the greater community. When insufficient ED capacity leads to overcrowding, the relevant literature suggests treatment outcomes suffer.[[20]](#endnote-11),[[21]](#endnote-12) The Proposed Project will have a dedicated behavioral health unit with greater bed capacity within the ED, which has the potential to improve the patient experience by providing treatment in a more secure and confidential environment and has the potential to ease congestion and wait times in the ED. As a result, Staff finds that the Applicant meets the requirements of the Public Health Value: Health Outcomes and Quality of Life part of Factor 1b.

***Health Equity and Social Determinants of Health (SDoH)***

The Applicant states that the Proposed Project will work to reduce health inequity by increasing and improving access to emergency services in the community. The Applicant stated that “Sturdy Health respects each patient’s right to receive information in a manner that the patient understands.” The Hospital has implemented the following initiatives to facilitate equitable access to its services:

**Language Accessibility:** The Hospital starts with screening all patients at registration to collect their race, ethnicity, and language preference. Interpreter services are available 24/7 to all patients using iPad virtual, telephone, and in-person interpreters. Sturdy Health contracts with external organizations (Cyracom, Partners Interpreter Services and AMN) to provide interpreter services within the Hospital and medical offices. The Hospital has identified the top languages accessed via the interpreter services as Haitian Creole, Spanish, Arabic, and Portuguese. The interpreter services partners also provide ASL services for hearing-impaired patients. Sturdy Health currently screens for visual and hearing impairment and provides hearing augmentation devices as needed. Sturdy Health has translated key healthcare documents to the most requested languages to better serve its patients and community. The Applicant also states that they utilize patient experience feedback surveys to collect data regarding interpreter services, implement improvements and provide feedback to patients.

**Staff Development:** All staff members who interact with patients take courses focusing on language accessibility and diversity issues. The trainings include:

* Diversity in Healthcare Training
* How to Build a Foundation for Sexual Orientation and Gender Identity Empathy and Communication
* How to Build Language and Skills that Welcome and Affirm LGBT Patients.

The Applicant also provides an in-person, training for management covering Unconscious Bias and Multicultural Communications Training.

**Accessibility Needs:** The Hospital plans to implement a screening for disability needs in the ED within the next year to provide patients with the most appropriate accommodations during their treatment. Currently, the Applicant screens patients at risk for falls and implements assistive devices, physical therapy in the ED, bed alarms, and bedside equipment such as commodes and tables.

**Connection to Local Resources:** If a patient discloses a need for assistance during their ED visit or routine nursing assessments suggest a patient should be screened, patients are screened using the Protocol for Responding to and Assessing Patients’ Assets, Risks and Experiences (PRAPARE) tool during the visit. All patients admitted for inpatient or observation stays are screened for SDoH, and patients are provided with resources to help address their identified social needs. Any immediate needs that prevent safe discharge from the Hospital are addressed prior to a patient’s discharge. Sturdy Health also performs the Identified Seniors at Risk (ISAR) assessment with all patients aged 65 or older and provides case management consultation to those who screen positive for home safety evaluations, visiting nurse or other services, as needed.

***Analysis: Health Equity and SDoH***

The DoN Staff reviewed the Applicant’s efforts to ensure equitable care. The Applicant demonstrates efforts to achieve health equity through language accessibility, connection to local resources, and specialized staff training. Staff finds that the Applicant has sufficiently outlined ongoing efforts to achieve health equity. As a result, Staff finds that the Applicant meets the requirements of the Public Health Value: Health Equity part of Factor 1b.

# Factor 1: c) Efficiency, Continuity of Care, Coordination of Care

The Applicant asserts the Proposed Project will promote continuity of care, improved health outcomes, and enhanced quality of life through its efficient use of space to support treatment. As discussed in detail in Factor 1a, the current ED struggles with both spatial inefficiencies as well as limited room for both treatment and patient privacy. The new design in the Proposed Project will allow colocation of hospitalists and ED providers with case management and ED pharmacists, greatly improving communications and patient care coordination, reducing the risk of medication errors, and improving the determination of appropriate disposition and time to discharge. ED providers will also be located within pods with ED nurses, which will allow for improved communication between the nurse and provider staff. The Proposed Project also includes a dedicated radiology suite with CT scan and x-ray imaging, which will allow acutely ill patients to receive diagnostic imaging more quickly without being transported outside of the ED, both reducing the time to diagnosis, and improving the time to treatment. The Proposed Project will provide a private, secure, and calm environment for behavioral health needs, which the Applicant believes will contribute to reduced episodes of agitated behavior and will lead to a reduction in use of physical restraints and employee assaults/injury.

***Analysis***

Staff finds that the Proposed Project’s expanded and redesigned physical space will allow for the colocation of both clinical and case management providers, which will contribute positively to efficiency, continuity, and coordination of care. Improving the physical layout of the ED, which includes improvements to the atmosphere of the behavioral health unit, will likely improve the efficiency of the ED setting. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1c.

# Factor 1: d) Consultation

The Applicant has provided evidence of consultation, both prior to and after the Filing Date, with all government agencies that have licensure, certification, or other regulatory oversight, which has been done and will not be addressed further in this report. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1d.

# Factor 1: e) Evidence of Sound Community Engagement

The Department’s Guideline[[22]](#footnote-12) for community engagement defines “community” as the Patient Panel, and requires that at minimum, the Applicant must “consult” with groups representative of the Applicant's Patient Panel. Regulations state that efforts in such consultation should consist of engaging “community coalitions statistically representative of the Patient Panel.”[[23]](#footnote-13)

The Applicant presented the Proposed Project to the following groups:

* Hospital’s Patient and Family Advisory Committee (PFAC)
* Public Community Meetings

During each of the presentations described below, attendees were educated on the Applicant’s proposed plans, including how the Proposed Project will benefit the Hospital’s Patient Panel. Following the presentation, attendees were able to share feedback and ask the presenters questions. At each of these events, community members evaluated the Proposed Project and expressed their generally supportive thoughts and feedback.

1. **Hospital’s Patient and Family Advisory Committee (PFAC):** The Proposed Project was presented to the PFAC in March and December 2023 as well as March and June 2024 meetings.
2. **Presentations to the Community:** The Hospital hosted a variety of public meetings to inform the larger community about the Proposed Project. The Hospital put on a “Community Coffee and Conversation” event in May 2023. The Proposed Project was presented to community members at two separate Attleboro Movie Nights at Capron Park in September 2023, and August 2024. Attendees of the Sturdy Health Vaccination Community Clinic event in October 2023, were provided information on the Proposed Project and encouraged to share their thoughts and feedback. The Proposed Project was presented to the public at the Attleboro Spring Fling 2024 event in April 2024, the Downtown North Attleborough Collaborative Block Party in September 2024, and the Fall Meeting of the Sturdy Health Foundation in September 2024.

***Analysis***

Staff finds that the Applicant sought to engage the community to elicit feedback from patients and families regarding the Proposed Project and thereby the Applicant has met the minimum required community engagement standard of Consult in the planning phase of the Proposed Project.

# Factor 1: f) Competition On Price, Total Medical Expenses (TME), Costs And Other Measures Of Health Care Spending

The Applicant asserts that the Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized measures of health care spending by improving access to emergency care without negatively impacting health care spending. The Proposed Project seeks to ensure that the Hospital ED is equipped to accommodate the community’s current and projected needs. The Applicant asserts that the expansion will create a physical environment that enhances care delivery and promotes positive health outcomes. The Hospital aims to ensure timely access to emergency services in appropriate care settings to best serve its Patient Panel without negatively impacting health care costs.

The Proposed Project is expected to reduce overcrowding, which the Applicant anticipates will reduce the Hospital’s unnecessary spending. The Applicant cites studies showing that wait times in the ED have a significant impact on the total cost of care for patients.[[24]](#endnote-13) For patients with the most acute conditions, a 60-minute increase in wait time increases the hospital's cost to care for the patient by an average of 30%. For those with moderately acute conditions, a 60-minute increase in wait time increases the hospital's cost to care for the patient by an average of 21 %.[[25]](#endnote-14) During times of high volume, including Code Help[[26]](#footnote-14), the ED must bring on additional staff, relying on per diem staff or overtime staff. The research suggests that reducing waiting times by 60 minutes after will likely reduce the overall cost of care for ED patients by a significant portion, thereby reducing TME. The Applicant asserts that the reduction of wait times through the Proposed Project’s expansion of more appropriate care settings will reduce health care spending resulting from greater throughput and more expeditious care.

***Analysis***

Staff finds that the Proposed Project will improve timely access to emergency services due to anticipated reduction in wait times and overcrowding. These reductions can result in an overall reduction in healthcare costs. Staff finds that the Proposed Project will likely compete on the basis of price, TME provider costs, and other measures of health care spending.

## *Summary, FACTOR 1*

As a result of the information provided by the Applicant and additional analysis, staff finds that the Applicant has demonstrated that the Proposed Project meets Factor 1.

# Factor 2: Cost Containment, Improved Public Health Outcomes and Delivery System Transformation

**Cost Containment**

The Applicant states that the Proposed Project will meaningfully contribute to the Commonwealth’s goals for cost containment by ensuring timely and equitable access to emergency services. The Proposed Project seeks to improve access to an essential component of health care that, when impacted by inefficiency, can negatively impact health outcomes and increase health care costs. As previously noted in Factor 1f, timely access to emergency care can reduce the cost of care and improve health outcomes, resulting in a reduction of health care spending.[[27]](#endnote-15) The Applicant states that ensuring timely access to emergency health services may help to improve health outcomes and reduce the overall cost of care by eliminating costly return visits and hospitalizations.

***Analysis: Cost Containment***

Through expedient and efficient access to ED services, the Proposed Project has the potential to achieve cost containment goals by reducing wait times and improving health outcomes. As a result, staff can conclude that the Proposed Project will likely meet the cost containment elements of Factor 2.

**Improved Public Health Outcomes**

The Proposed Project will improve public health outcomes by providing patients timely access to emergency care in the most appropriate care environment for their condition, in turn reducing delays in diagnosis and treatment. The current mismatch between capacity and volume has increased wait times, the number of patients leaving without being seen, which can affect the level of patient dissatisfaction. Historical utilization trends coupled with population projections demonstrate a need for the Hospital to expand capacity in order to meet current and future demand for emergency care in the community. The efficiencies of the physical space in the Proposed Project, which includes trauma rooms located adjacent to the ambulance bay and the elevators to the helipad, as well as embedding imaging within the ED, are expected to cut down patient transport time. Reducing treatment delays is anticipated to contribute to improving overall health outcomes.

**Analysis: Public Health Outcomes**

Staff finds that the expansion of the ED will help ensure timely access to care and avoid delays in treatment that can adversely impact health outcomes. The additional treatment areas will provide the Hospital with the ability to both serve the current volume of ED visits, as well as the growing needs of the community in the future. Therefore, DoN Staff can conclude that the Proposed Project will likely meet the Public Health Outcomes component of Factor 2.

**Delivery System Transformation**

With the expansion of the ED, the Applicant plans to continue to work with health care providers and community social services providers to ensure patients are connected with needed resources outside of the Hospital. The Applicant uses the PRAPARE screening tool with all admitted patients and has the clinical discretion to screen ED patients if necessary. If the patient discloses a need for assistance or nurse assessments suggest a need, Hospital staff then provide those patients with resources to help address their designated social needs. If there are instances whereby an immediate need prevents safe release from the Hospital, then those needs are addressed by the hospital staff prior to discharge. In support of patients who screen positive for a social need, the Hospital collaborated with local organizations to develop the Sturdy Health Connecting our Community, a comprehensive guide to community resources available to patients. Hospital staff are able to provide this guide to patients based on their identified SDoH needs and in the patient’s preferred language. For those patients who require a higher degree of assistance, Hospital staff will support them in enrolling in various programs, including the YMCA nutrition support program, Community Servings, and CCBC housing program.

***Analysis: Delivery System Transformation***

Central to the goal of Delivery System Transformation is the integration of social services and community-based expertise. While the SDoH screening is not routinely used in the ED, it is a regular part of the patient admission process and can be used in the ED if determined to be necessary. Appropriate linkages are then made to community resources to address health risks and improve health outcomes. Therefore, DoN Staff can conclude that the Proposed Project will likely meet the Delivery System Transformation component of Factor 2.

# Summary, FACTOR 2

As a result of information provided, staff finds that the Proposed Project has sufficiently met the requirements of Factor 2.

# Factor 3: Relevant Licensure/Oversight Compliance

The Applicant has provided evidence of compliance and good standing with federal, state, and local laws and regulations and this Factor will not be addressed further in this report. As a result of information provided by the Applicant, staff finds the Applicant has reasonably met the standards of Factor 3.

# Factor 4: Financial Feasibility

Under Factor 4, the Applicant must demonstrate that it has sufficient funds available for capital and operating costs necessary to support the Proposed Project without negative effects or consequences to the existing Patient Panel. Documentation sufficient to make such finding must be supported by an analysis by an independent CPA.

The Applicant submitted a CPA report compiled by Meyers Brothers Kalicka, Certified Public Accountants. The scope of the analysis included review of the five-year financial projections, five-year projected cash flow statements, historical ED volumes (FY2021 through FY2023), historical ED revenues and expenses (FY2019 through FY2023 and annualized FY2024), Sturdy Health, Inc. and Affiliates audited consolidated financial statements (FY2022 and FY2023), Projected revenues and expenses for project (FY2028 through FY2032) and capital project budget. The CPA assessed the reasonableness[[28]](#footnote-15) of assumptions used in the preparation and feasibility[[29]](#footnote-16) of the projections with regards to the Proposed Project.

**Revenues**

The CPA reviewed and analyzed the net operating revenues in the historical and projected financial information. The projected net patient revenue is based on the historical average of Commercial (30%), MassHealth (5%), Medicare (49%), Medicaid (13%) and other (3%) reimbursement rates for Sturdy Memorial Hospital. For FY2028-2032, the volume of ED cases projected an increase of 2% annually. Projections assumed volume growth increases to be consistent with pre-pandemic conditions. The CPA’s opinion is that the revenue projected by Management is a reasonable estimation based primarily upon the historical case volume.

**Expenses**

The CPA analyzed Salaries and Benefits, Supplies, Physician Expenses, Fees, and Depreciation Expense for reasonableness and feasibility as related to the Proposed Project.

*Salaries and Benefits: S*alaries were based on an estimate of 96 full-time employees (FTE) and Benefits were calculated as a percentage of salaries using historical data. Projected salaries and wages included an increase of two registered nurses in the first year in order to accommodate the volume increases, premiums to work additional shifts, on-call payments, and premiums for overtime. In addition to the increase in FTEs, management also assumes an approximate 3.5% cost of living adjustment annually. Fringe benefit projections are based on historical figures of approximately 30% of total wages, plus an anticipated increase in benefit costs of 4% for the years ending from FY2028 to FY2032.

*Physician Expenses and Fees:* The Applicant anticipates that 11 physicians will be needed to operate the ED. The Projections assume an increase of approximately 3.5% in physician salaries and fees for FY2028-2032. This line item also includes the cost of the Chief of Emergency Medicine salary.

*Supplies:* Medical supplies, including pharmaceutical supplies, are calculated at an increase of approximately 4.8% each year for inflation for FY2028 to FY2032. Other supplies and services include contracted outside labor and MD services, purchased services, office supplies, repairs and maintenance, information technology, insurance, taxes, and other miscellaneous expenses. The Projections estimated an increase in other supplies and services of 4% for FY2028 to FY2032.

*Depreciation Expense and Fees:* The cost of movable medical equipment and fixed medical equipment will be depreciated over 7 years. Costs related to the building, helipad, and parking lot will be depreciated over 40 years. Depreciation is expected to begin during the third quarter of FY2027. The Applicant is also required to pay a 5% fee to the Commonwealth of Massachusetts based on the total projected capital costs toward the community health initiative (CHI).

The CPA concludes that the total expenses projected by Management are a reasonable estimation.

**Cash Flows**

The CPA reviewed the cash flow for the project. Approximately 55% of the total project cost will be financed through debt during the start-up period. The debt is payable in 360 monthly installments with a fixed interest rate of 6%. Interest only payments will begin in April 2026, and will continue through October 2027, at which time principal plus interest payments will begin. The remaining costs will be funded through the equity, fundraising, and available reserves of the Applicant. The CPA stated that the capital needs and ongoing operating costs required for the renovation and expansion of the ED at Sturdy Memorial Hospital are not likely to result in a scenario where there is negative cash flow over the five-year projected period.

As a result of its analysis, the CPA concluded the following:

*“*We determined that the projections were not likely to result in insufficient funds available for ongoing operating costs necessary to support the expanded emergency department. Based upon our review of the projections and relevant supporting documentation, we determined the renovation and expansion of the ED at Sturdy Memorial Hospital by the Applicant is reasonable and based upon feasible financial assumptions*.”*

***Factor 4 Analysis***

Staff is satisfied with the CPA’s analysis of the Proposed Project’s projections. As a result of information provided by the Applicant and additional analysis, staff finds that the Applicant has demonstrated that the Proposed Project has met Factor 4.

# Factor 5: Assessment of the Proposed Project’s Relative Merit

Evaluation of 105 CMR 100.210(A)(5) shall take into account, at a minimum, the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives or substitutes, including alternative evidence-based strategies and public health interventions. The Applicant must provide sufficient evidence that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs identified by the Applicant pursuant to 105 CMR 100.210(A)(1).

The Applicant considered and rejected two alternatives to the Proposed Project:

**Alternative Option 1: Renovate But Not Expand Existing ED:** This alternative was rejected because the estimated additional capital expenditure is approximately $20 million over the cost of the Proposed Project due to a significantly longer construction timeline. During that time, the already overcrowded ED would need to be downsized while a portion of the ED was renovated at a time, exacerbating already strained capacity. Renovating in place without addressing the need for additional treatment space would compound existing inefficiencies and wait times. Patients would thus be at higher risk of adverse outcomes due to wait times before receiving care, including an increased number of patients who will leave the ED without receiving care at all.

**Alternative Option 2: Locate new Emergency Department in Other Locations on the Hospital Campus:** The Hospital explored alternative locations for the new Emergency Department addition, noting that the options are very limited by the size of the hospital campus. Most options were varying combinations of renovating the existing space with an addition on one of the exterior sides. Relocating the ED to the other side of the hospital, near the ICU was also considered. The capital expenses of renovating the existing ED with a build-out or building an addition for the ED on the other side of the buildings both exceed the proposed option. The difference in grade made the alternate side option difficult (in terms of lining up floors / entry into the building) and expensive. The renovation with an addition option would further exacerbate wait times and ED overcrowding as parts of the existing space would be taken out one at a time for renovation. This would result in worsening patient health outcomes and decreased patient satisfaction.

***Analysis***

Staff finds that the Applicant has appropriately considered the quality, efficiency, and capital and operating costs of the Proposed Project relative to the potential alternative. As a result of information provided by the Applicant and additional analysis, staff finds the Applicant has reasonably met the standards of Factor 5.

# Factor 6: Fulfillment of DPH Community-based Health Initiatives

*Summary, relevant background and context for this application:* To fulfill Factor 6 requirements, the Applicant submitted a CHI Narrative, Self-Assessment, Community Engagement Plan, Partner Assessments, and the Applicant's 2022 Community Health Needs Assessment (CHNA) and 2023-25 Implementation Plan.

DPH agrees that the Applicant can utilize their community engagement processes for their 2025 CHNA to support the community engagement requirements for CHI project implementation. Additionally, the Applicant will engage its Community Benefits Advisory Council (CBAC) to select priorities and identify strategies for CHI implementation with the funds associated with this project. To align with CHI principles, the Applicant will engage at regular intervals with the CHI team to build capacity for deeper health equity and community engagement work.

**The 2022 CHNA** assessed the Applicant’s primary (Attleboro, Foxborough, Mansfield, North Attleboro, Norton, Plainville, Seekonk, Rehoboth, and Wrentham) and secondary (Norfolk, Sharon, and Walpole) service areas. All demographic and health indicator data was compiled into service area level and county level data (Norfolk and Bristol Counties). The CHNA analyzed secondary data and online key informant surveys to capture socioeconomic factors, health behaviors and health outcomes. Key community health issues highlighted in the CHNA and prioritized in the **2023-25 Implementation Plan (IP)** included: access to healthcare and prevention services, affordable housing and income, mental/behavioral health and substance abuse, mortality and chronic disease management, and obesity and weight management.

Using the 2022 CHNA and the 2023-25 IP, the Applicant will engage its CBAC and apply a health and racial equity framework to select health priorities and identify social determinant of health level implementation strategies for the proposed project’s local CHI funds.

**The Self-Assessment** provided a summary of community engagement processes and data highlights related to topics and themes of community issues highlighted in the existing CHNA/IP and upcoming 2025 CHNA. Through primary data collection (key informant surveys) and secondary data analysis, the Applicant and participating community partners identified the key needs outlined in the 2022 CHNA and 2023-25 IP.

With the upcoming 2025-27 CHNA/IP processes, the Applicant’s Self-Assessment also noted the need to capture primary and secondary data related to gender identity, sexual orientation, age, disability status, socioeconomic status and geographic location, in addition to race and ethnicity. Quantitative and qualitative data collection (E.g., focus groups) from communities of focus will strengthen overall community engagement practices and is critical to ensure the Applicant engages those most impacted by community health needs in the CHI implementation process.

**Community Engagement Plan** provided background information for, and explanation of synergies with the upcoming 2025-2027 CHNA/IP planning and CHI implementation processes. These elements focused on the 2025 CHNA community engagement processes and how the Applicant plans to include the CHI planning as part of key partner interviews, focus groups and community conversations. Levels of engagement in all activity areas were identified for the CHNA/IP processes and key CHI implementation phases from selecting health priorities to evaluating actions.

**Partner Assessments** (formally known as Stakeholder Assessments) submitted provided information on the individuals’ engagement levels (e.g. their personal participation and role) and their analysis of how the Applicant engaged the community in community health improvement planning processes. The information provided in these forms was largely consistent with the self-assessment conducted by the Applicant.

**The CHI Narrative** provided background and overview information for the CHI processes, including the CHI funds breakdown, the anticipated timeline for CHI activities, and the use of funding for evaluation and administrative activities. With the administrative funds, the Applicant’s early plans are to develop and disseminate communication materials and support participation through meeting promotion and engagement barrier reduction activities. The timeline, RFP processes, and use of evaluation and administrative funds are appropriate and in line with CHI planning guidelines.

In the 2022 CHNA/IP, the Applicant highlights some SDoH areas, including housing and education, and should do the same in the 2025-27 CHNA/IP as well as expand to include other SDoH areas (E.g., transportation, built environment, social environment, violence and trauma) highlighted in the [Health Priorities Guideline](https://www.mass.gov/doc/health-priority-0/download) to ensure selection of CHI implementation strategies that meet CHI principles. This will help the Applicant to focus on the priority areas in the upcoming CHNA that allow for implementation at the root cause level.

The Applicant will work with its CBAC, an advisory body that is separate from Sturdy’s Patient and Family Advisory Council (PFAC), to select CHI priorities and approve implementation strategies. DPH staff have determined that if the Applicant agrees to assess and address community conditions and root causes while engaging in ongoing work with their CBAC, CHI investment will align appropriately with the Health Priorities Guideline. The Applicant will also have additional touchpoints with CHI staff to share updates and lessons learned on the 2025 CHNA/IP community engagement efforts to ensure sound processes for planning and implementation work moving forward.

***Analysis***

As a result of information provided by the Applicant and additional analysis, staff finds that with the conditions outlined below, and the ongoing communication on items for improvement outlined above, the Applicant will have demonstrated that the Proposed Project has met Factor 6.

# Overall Findings and Recommendations

Based upon a review of the materials submitted, Staff finds that, with the addition of the recommended conditions detailed below, the Applicant has met each DoN Factor for the Proposed Project and recommends that the Department approve this Determination of Need, subject to all applicable standard and Other Conditions.

# Conditions to the DoN

1. Of the total required CHI contribution of $4,072,075.10
2. $997,658.40 will be directed to the CHI Statewide Initiative.
3. $2,992,975.20 will be dedicated to local approaches to the DoN Health Priorities.
4. $81,441.50 will be designated as the administrative fee.
5. To comply with the Holder’s obligation to contribute to the CHI Statewide Initiative, the Holder must submit a check for $997,658.40 to Health Resources in Action (the fiscal agent for the CHI Statewide Initiative) **within 30 days** from the date of the Notice of Approval.
6. Payments should be made out to:

Health Resources in Action, Inc. (HRiA)

2 Boylston Street, 4th Floor

Boston, MA 02116 Attn: MACHHAF c/o Bora Toro

DoN project #: SH-24100710-HE

1. Please send a PDF image of the check or **confirmation of payment** to DONCHI@Mass.gov and [dongrants@hria.org](mailto:dongrants@hria.org)

If you should have any questions or concerns regarding the payment, please contact the CHI team at [DONCHI@Mass.gov](mailto:DONCHI@Mass.gov).

# Appendix I

**Outcome Measures**

Below is a list of outcome measures to assess the impact of the Proposed Project. The Applicant will report this information to the Department’s DoN Program staff as part of its annual report required by 105 CMR 100.310(A)(12) following implementation of the Proposed Project. For all measures, the Applicant will provide to the program a baseline upon implementation of each project component, along with updated projections, which the program will use for comparison with the annual data submitted. Reporting will include a description of numerators and denominators.

1. Provide the following data related to the Behavioral Health Unit in the ED.

|  |
| --- |
| Annual Visits |
| Wait time in minutes from door to provider |
| Left without being seen (Expressed as Percentage of Annual Visits) |
| Psych Boarders |
| Total Length of Stay |

1. **Emergency Department Patient Satisfaction:** Patients who have positive experiences receiving health care are more likely to seek out future care when needed. The Applicant will use the Press Ganey survey to measure patient satisfaction following the opening of the new ED. The specific measure will be “Likelihood to recommend the ER”.

**Numerator:** Total of all responses (top box)

**Denominator:** # of responses x 100

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quality Measure #2** | **Baseline** | **Year 1** | **Year 2** | **Year 3** |
| Overall score | 54.75 | 55.86 | 57.47 | 58.88 |

1. **Access - Left Without Being Seen:** Through a redesigned physical space and new patient throughput processes, the ED will be able to move patients to exam rooms more quickly, reducing wait times, overcrowding and the LWBS rate.

**Numerator:** The number of patients leaving the ED without treatment, without being seen, or without an appropriate discharge.

**Denominator:** The total number of patients who register in the ED to be seen.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quality Measure #3** | **Baseline** | **Year 1** | **Year 2** | **Year 3** |
| Percent of patients who leave without being seen | 3.18% | 3% | 2.5% | 2% |

1. **Access – Door to Provider Time:** This metric will measure the amount of time it takes for a patient to movefrom registration to being seen by a physician (or equivalent, such as a nurse practitioner or physician assistant), including the time between being seen in triage to being moved to a treatment area.

**Numerator A:** Total minutes from registration to triage area for all ED patients.

**Denominator A:** Total number of ED patients

**Numerator B:** Total minutes from triage to treatment area.

**Denominator B:** Total number of ED patients

| **Quality Measure #4** | **Baseline** | **Year 1** | **Year 2** | **Year 3** |
| --- | --- | --- | --- | --- |
| Average time registration to provider (minutes) | 64 min. | 60 min. | 45 min. | 35 min. |
| Average time triage to treatment area (minutes) | 46 min. | 40 min. | 30 min. | 25 min. |

1. **Patient Experience: Length of Stay** This metric will measure patients’ total length of stay in the ED from registration to discharge.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quality Measure #5** | **Baseline** | **Year 1** | **Year 2** | **Year 3** |
| Length of Stay | 265 min | 250 min | 225 min | 200 min |

# REFERENCES

1. Hallway stretchers are not reflected on the Hospital’s license and are only used during surges and periods of high demand. Hallway stretcher volume data is not tracked. Due to the expansion of ED beds through the Proposed Project, the utilization of hallway stretchers is expected to decrease. However, the new, expanded emergency department footprint provides greater potential capacity for hallway stretcher utilization in the event they are necessary to manage surge volumes caused by major events/disasters or should the hospital enter a CODE HELP scenario. [↑](#footnote-ref-2)
2. As defined in 105 CMR 100.100, Patient Panel is the total of the individual patients regardless of payer, including those patients seen within an emergency department(s) if applicable, seen over the course of the most recent complete 36-month period by the Applicant or Holder…(2) If the Proposed Project is for a new facility and there is no existing patient panel, Patient Panel means the anticipated patients. [↑](#footnote-ref-3)
3. [U.S. Census Bureau, "Demographic Profile, July 1, 2022 (V2022) – Bristol County, MA," Quick Facts,](https://www.census.gov/quickfacts/fact/table/bristolcountymassachusetts/PST045224) accessed January 28,2025. <https://www.census.gov/quickfacts/fact/table/bristolcountymassachusetts/PST045224> [↑](#endnote-ref-2)
4. Includes genders other than male/female, as well as patients for whom a gender is not specified. [↑](#footnote-ref-4)
5. The Emergency Severity Index (ESI) is a five-level triage tool used in emergency departments (EDs) to categorize patients based on their acuity and resource needs:

   Level 1: Most urgent. Immediate, life-saving intervention required without delay.

   Level 2: Needs care within 15 minutes, high risk of deterioration, or signs of a time-critical problem.

   Level 3: Needs care within 15 minutes, patient stable, with multiple types of resources needed to investigate or treat.

   Level 4: Needs care within 30 minutes, patient stable, with only one type of resource anticipated.

   Level 5: Least urgent, patient stable, with no resources anticipated except oral or topical medications, or prescriptions. [↑](#footnote-ref-5)
6. Due to a change in EMR systems, FY2021 is missing 18 days (October 1 – October 18) [↑](#footnote-ref-6)
7. All patients who LWBS, elope or leave AMA receive a follow-up call pursuant to hospital policy and are encouraged to return for care. [↑](#footnote-ref-7)
8. A psych boarder is a patient who must wait in the ED or on a medical-surgical floor for any amount of time after the decision to admit is made and until a psychiatric inpatient bed is available. [↑](#footnote-ref-8)
9. A medical boarder in the ED is a patient who has been admitted to the hospital but is kept in the ED greater than 2 hours after the decision to admit because there are no inpatient beds available. [↑](#footnote-ref-9)
10. While the number of Code Help activations decreased in FY2024, the number of days in Code Help remained relatively consistent with 214 days in FY2023 and 199 days in FY2024. [↑](#footnote-ref-10)
11. The Innova Group specializes in healthcare strategic, operational, financial and facility planning and are recognized as both thought partners and thought leaders in the field, respected for their ability to generate credible analyses that lead to actionable results. [↑](#footnote-ref-11)
12. Kimberly Nordstrom et al., [*Boarding of Mentally Ill Patients in Emergency Departments: American Psychiatric Association Resource Document*,](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/) Western Journal of Emergency Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/> (Sept. 2019). [↑](#endnote-ref-3)
13. Kimberly Nordstrom et al., [*Boarding of Mentally Ill Patients in Emergency Departments: American Psychiatric Association Resource Document*,](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/) Western Journal of Emergency Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/> (Sept. 2019). [↑](#endnote-ref-4)
14. Jennifer L. Wiler et al., *Care of the Psychiatric Patient in the Emergency Department –A Review of the Literature*, American College of Emergency Physicians (Oct. 2014). [↑](#endnote-ref-5)
15. Kimberly Nordstrom et al., [*Boarding of Mentally Ill Patients in Emergency Departments: American Psychiatric Association Resource Document*,](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/%20() Western Journal of Emergency Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/> (Sept. 2019). [↑](#endnote-ref-6)
16. Marina Sartini et al., [*Overcrowding in Emergency Department: Causes Consequences, and Solutions—A Narrative Review*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498666/), Healthcare (Basel) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498666/> (Aug. 25, 2022). [↑](#endnote-ref-7)
17. Ula Hwang et al., [*Emergency Department Crowding and Decreased Quality of Pain Care*,](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729811/) Academic Emergency Medicine,[*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729811/*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729811/) *(Dec 2008)* [↑](#endnote-ref-8)
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26. The Hospital’s Code Help Policy sets forth the following triggers for activating Code Help: Total number/volume of patients in the ED or the acuity of the patients, maximum licensed treatment beds are reached; Inability to accommodate patient needs with current resources, staff and/or equipment; the ED is unable to care for existing patients; ED waiting room volume and duration of wait time, i.e., Priority 3 patients waiting >2 hours and/or the ED is unable to accept any new patients into the treatment area; Inpatients holding in the ED with all inpatient locations full; and/or Inability to manage ambulance volume. [↑](#footnote-ref-14)
27. Lindsey Woodworth and James F. Holmes, [*Just A Minute: The Effect of Emergency Department Wait Time on the Cost of Care*](https://onlinelibrary.wiley.com/doi/abs/10.1111/ecin.12849), Economic Inquiry (Nov. 5, 2019), [https://onlinelibrary.wiley.com/doi/abs/10.1111/ecin.12849](https://urldefense.com/v3/__https:/onlinelibrary.wiley.com/doi/abs/10.1111/ecin.12849__;!!CPANwP4y!TKCF6JCs9yJRdm54VcarhXo1HyDimlN_N-bNJbZXKw3dJ6zvhk_90_cruoq1WaQvjBoAhOmEuns0QsnGKrDo3sOnHrvuxxAO3gCH9_Yp30mmJrfQig$). [↑](#endnote-ref-15)
28. Reasonableness is defined within the context of this report as supportable and proper, given the underlying information. [↑](#footnote-ref-15)
29. Feasibility is defined as based on the assumptions used, the plan is not likely to result in insufficient funds available for capital and ongoing operating costs necessary to support the proposed project without negative impacts or consequences to the existing Patient Panel. [↑](#footnote-ref-16)