

APPENDIX 2

NARRATIVE

2. Project Description

Beth Israel Lahey Health, Inc. (the "Applicant" or "BILH"), with a principal place of business at 20 University Road, Suite 700, Cambridge, MA 02138, is filing a Notice of Determination of Need ("DoN") ("Application") with the Department of Public Health ("DPH") for the renovation and expansion of the Emergency Department ("ED") at Beth Israel Deaconess Hospital - Plymouth ("BID-Plymouth" or "Hospital"), located at 275 Sandwich St, Plymouth, MA 02360 (the "Proposed Project").

BILH is a Massachusetts, non-profit, tax-exempt corporation that oversees an integrated health care delivery system comprised of teaching and community hospitals, physician groups, behavioral health providers, post-acute care providers and other caregivers serving patients in Greater Boston and the surrounding communities in Eastern Massachusetts and Southeastern New Hampshire. Its member hospitals include Addison Gilbert Hospital; Anna Jaques Hospital; Beth Israel Deaconess Medical Center; Beth Israel Deaconess Hospital-Milton; Beth Israel Deaconess Hospital-Needham, BID-Plymouth; Beverly Hospital; Lahey Hospital & Medical Center; Lahey Medical Center, Peabody; Mount Auburn Hospital; New England Baptist Hospital; and Winchester Hospital (collectively known as "BILH Hospitals").

BID-Plymouth is a 175-bed acute care hospital serving the communities of Plymouth, Carver, Kingston, Middleboro, Duxbury, Marshfield, Bourne, Pembroke, Sandwich, Halifax, and Plympton. The Hospital provides a full range of comprehensive community hospital services including primary and preventative care, emergency services, surgical services inpatient acute care, inpatient psychiatric services, and specialty services.

BID-Plymouth's ED was built more than 30 years ago in 1993 to accommodate 25,000 patient visits annually. Last year, the Hospital provided emergency care to 43,609 patients, nearly 75% more patients than the space was designed to accommodate. Because the ED is undersized to meet current demand, the Hospital's ED has experienced a 696% increase in wait times and a 209% increase in patients who leave without being seen since FY2020. These increases represent an unmet need in the community that must be addressed through increased capacity and greater throughput in the Hospital's ED.

The Proposed Project will right-size the ED to meet current and projected demand for emergency services. The Hospital's existing 14,434 square foot ED consists of five (5) private rooms, four (4) cubicles, and 16 bays. Additionally, there are seven (7) beds in a dedicated behavioral health unit, 15 hallway beds, a triage room, a two-position trauma room, and supporting clinical & administrative areas. The Proposed Project comprises the renovation of the existing ED and adjacent areas and an 8,051-square-foot addition, resulting in a 29,060-square-foot department comprised of 37 private treatment rooms, a separate behavioral health unit comprised of 16 private behavioral health rooms, a 10-bed vertical treatment unit, two (2) triage rooms, a two-position trauma room, administrative areas, and significantly enhanced clinical support spaces. In total, the ED will include 67 treatment beds in private, walled spaces that include monitoring and treatment equipment. Existing imaging equipment, including two (2) X-ray machines and two (2) computed tomography units, that is embedded within the emergency department will not change.

In sum, the Proposed Project will significantly improve the ED's capacity to provide timely and appropriate emergency care to the Hospital's Patient Panel and the communities it serves. Through the expansion of the ED, the Hospital will be able to accommodate growing demand for emergency care, providing dedicated services and resources across the spectrum of emergency care including lower acuity conditions and behavioral health emergencies. As a result of the Proposed Project's improved capacity to provide care, health outcomes will improve as will quality of life, while simultaneously reducing health care spending. Accordingly, the Proposed Project meets the factors of review for Determination of Need approval.

Factor 1: Applicant Patient Panel Need, Public Health Values and Operational Objectives

Patient Panel:

Describe your existing Patient Panel, including incidence or prevalence of disease or behavioral risk factors, acuity mix, noted health disparities, geographic breakdown expressed in zip codes or other appropriate measure, demographics including age, gender and sexual identity, race, ethnicity, socioeconomic status and other priority populations relevant to the Applicant's existing patient panel and payer mix.

Overall Patient Panel

A. Beth Israel Lahey Health

BILH is an integrated health care delivery system of teaching and community hospitals, physician groups, behavioral health providers, post-acute care providers and other caregivers serving patients in Greater Boston¹ and the surrounding communities in Eastern Massachusetts and Southeastern New Hampshire. BILH aims to have a broader impact on the health care industry and patient populations in Massachusetts by sharing best practices, investing in foundational infrastructure to support population health management, and encouraging competition based on value.

BILH also operates Beth Israel Lahey Health Performance Network, LLC ("BILHPN"), a clinically integrated network of physicians, clinicians, and hospitals. BILHPN is a Health Policy Commission ("HPC") certified Accountable Care Organization ("ACO") committed to providing high-quality, cost-effective care to the patients and communities they serve, while effectively managing medical expense. By leveraging best practices in population health management and data analytics, BILHPN seeks to improve care quality and patient health outcomes across the system through population health initiatives.

Patient Panel

It is estimated that five million people reside in the BILH service area.² This area has experienced 6.4% population growth since 2010 and is projected to increase at a faster rate (4.5%) than the state (3.5%) from 2017 to 2022.³ As demonstrated in Table 1, the BILH Patient Panel consisted of 1,389,921 patients in fiscal year⁴ ("FY") 2023.

Patient demographics for FY21-FY23 show that the majority of BILH's Patient Panel is between 18 to 64, followed by 65+ and 0-17 age cohorts, respectively. BILH's Patient Panel is approximately 59% female, 41% male, and 0.5% Other. These percentages remained largely consistent from FY21 and FY23. Approximately 75% of the Patient Panel self-identify as White and approximately 88% of the Patient Panel self-identify as Not-Hispanic/Latino. Lastly, commercial payers are the primary payer source (50.5%), followed by Medicare (30%), and Medicaid (16.1%). The following table illustrates the demographics of BILH's Patient Panel.

¹ Greater Boston includes the following cities/towns: Acton, Arlington, Ashland, Bedford, Belmont, Boston, Boxborough, Braintree, Brighton, Brookline, Burlington, Cambridge, Canton, Carlisle, Chelsea, Cohasset, Concord, Dedham, Dorchester, Dover, Foxboro, Framingham, Hingham, Holbrook, Holliston, Hopkinton, Hudson, Hull, Lexington, Lincoln, Littleton, Marlborough, Maynard, Medfield, Millis, Milton, Natick, Needham, Newton, Norfolk, Northborough, Norwell, Norwood, Quincy, Randolph, Revere, Roslindale, Scituate, Sharon, Sherborn, Somerville, Southborough, Stow, Sudbury, Walpole, Waltham, Watertown, Wayland, Wellesley, Westborough, Weston, Westwood, Weymouth, Wilmington, Winchester, Winthrop, Woburn, and Wrentham.

² Census Reporter, Boston-Cambridge-Newton, MA-NH Metro Area, <https://censusreporter.org/profiles/31000US14460-boston-cambridge-newton-ma-nh-metro-area/>.

³ UMass Donahue Institute, *Long-term Population Projections for Massachusetts Regions and Municipalities*, March 2015.

⁴ For purposes of the Applicant's and the Hospital's patient panel, the fiscal year is defined as October 1 to September 30.

Table 1: BILH Patient Panel Demographics ⁵	FY2021 Count	FY2021 Percent	FY2022 Count	FY2022 Percent	FY2023 Count	FY2023 Percent
Total	1,434,603	100.00%	1,389,264	100.00%	1,398,921	100.00%
Age: 0 to 17	119,847	8.4%	114,893	8.3%	98,201	7.0%
Age: 18 to 64	899,855	62.7%	852,745	61.4%	848,076	60.6%
Age: 65+	414,901	28.9%	421,626	30.3%	452,644	32.4%
Gender: Male	593,790	41.4%	567,279	40.8%	573,059	41.0%
Gender: Female	817,695	57.0%	809,920	58.3%	819,131	58.6%
Gender: Other ⁶	23,118	1.6%	12,065	0.9%	6,731	0.5%
Race: White	1,063,216	74.1%	1,046,183	75.3%	1,057,436	75.6%
Race: Black or African American	79,034	5.5%	77,014	5.5%	79,023	5.6%
Race: American Indian or Alaska Native	1,931	0.1%	1,804	0.1%	1,819	0.1%
Race: Asian	86,041	6.0%	92,716	6.7%	95,061	6.8%
Race: Native Hawaiian or Other Pacific Islander	1,007	0.1%	968	0.1%	934	0.1%
Race: Other	70,296	4.9%	67,993	4.9%	66,961	4.8%
Race: Unknown	115,782	8.1%	83,494	6.0%	78,252	5.6%
Race: Patient Declined	17,296	1.2%	19,092	1.4%	19,435	1.4%
Ethnicity: Hispanic or Latino	56,446	3.9%	52,941	3.8%	52,818	3.8%
Ethnicity: Not Hispanic or Latino	1,207,159	84.1%	1,215,830	87.5%	1,242,712	88.8%
Ethnicity: Other	49,012	3.4%	36,755	2.6%	30,306	2.2%
Ethnicity: Unknown	114,486	8.0%	76,998	5.5%	67,382	4.8%
Ethnicity: Patient Declined	7,500	0.5%	6,740	0.5%	5,703	0.4%
Payer: Commercial	738,815	51.5%	711,907	51.2%	706,050	50.5%
Payer: Medicare	393,368	27.4%	396,340	28.5%	419,994	30.0%
Payer: Medicaid	221,234	15.4%	225,370	16.2%	224,892	16.1%
Payer: Other ⁷	81,032	5.6%	55,116	4.0%	46,685	3.3%
Payer: Unknown	154	0.0%	531	0.0%	1,300	0.1%

B. Beth Israel Deaconess Hospital – Plymouth

Overall Patient Panel

In FY23, BID-Plymouth's overall patient panel included 82,191 unique patients. Patients aged 65+ were the largest patient cohort, making up 37% of unique patients. An additional 29% of patients were aged 46-64. 58% of patients were female, compared to 42% male. 88% of patients self-identified as White, 2.3% of patients identified as Black/African American and 0.6% as Asian. Approximately 6.7% of patients declined to report their race. Approximately 40% of patients were covered by a commercial insurance plan, compared to 34% who were insured through Medicare, 18% through Medicaid, and 8% who had another source of coverage.

⁵ Please note for this filing, Patient Panel data is being submitted by the Applicant's fiscal year, October 1 through September 30. As such, totals will not match to filings made by the Applicant which used July 1 to June 30.

⁶ Includes genders other than male/female, as well as patients for whom a gender is not specified, and whose gender varies across visits over the time period.

⁷ Includes self-pay, health safety net, and liability coverage other than worker's compensation for an injury event.

Table 2: BID-Plymouth Patient Panel Demographics	2021 Count	2021 Percent	2022 Count	2022 Percent	2023 Count	2023 Percent
Total	89,731	100%	83,796	100%	82,191	100%
Age: 0 to 17	7,662	8.54%	7,171	8.6%	6,747	8.2%
Age: 18 to 25	5,688	6.34%	5,095	6.1%	4,835	5.9%
Age: 26-45	18,599	20.73%	16,955	20.2%	16,649	20.3%
Age: 46-64	28,335	31.58%	25,214	30.1%	23,659	28.8%
Age: 65+	29,447	32.82%	29,361	35.0%	30,301	36.9%
Gender: Male	36,446	40.62%	33,501	40.0%	34,689	42.2%
Gender: Female ⁸	53,285	59.38%	50,295	60.0%	47,502	57.8%
Race: White	77,891	86.81%	74,669	89.1%	72,742	88.5%
Race: Black or African American	1,759	1.96%	1,731	2.1%	1,904	2.3%
Race: American Indian or Alaska Native	75	0.08%	69	0.1%	100	0.1%
Race: Asian	527	0.59%	534	0.6%	505	0.6%
Race: Native Hawaiian or Other Pacific Islander	32	0.04%	35	0.0%	36	0.0%
Race: Other ⁹	967	1.08%	1,148	1.4%	1,379	1.7%
Race: Patient Declined	8,480	9.45%	5,610	6.7%	5,525	6.7%
Ethnicity: Hispanic/Latino	562	0.63%	1,364	1.49%	1,600	1.88%
Ethnicity: Not Hispanic/Latino	26,713	29.77%	68,765	75.35%	74,061	87.10%
Ethnicity: Unknown ¹⁰	62,482	69.63%	21,128	23.15%	9,374	11.02%
Payer Mix: Commercial	36,290	40.5%	34,186	38.1%	33,117	40.3%
Payer Mix: Medicaid	15,655	17.5%	15,329	17.1%	14,560	17.7%
Payer Mix: Medicare	27,550	30.7%	28,114	31.3%	27,996	34.1%
Payer Mix: Other ¹¹	9,741	10.9%	6,053	13.4%	6,469	7.9%
Payer Mix: Unknown	431	0.5%	114	0.1%	49	0.1%

⁸ For confidentiality, "Female" includes patients whose gender is other or unknown.

⁹ "Other" is a choice for patients to select if they do not feel that their race/ethnicity is reflected in the list of choices.

¹⁰ Due to how Ethnicity data is pulled and the timing of when FY22 data was pulled, a discrepancy exists between the patient totals for Ethnicity and overall patients.

¹¹ Includes self-pay, health safety net, and liability coverage other than worker's comp for an injury event.

C. Beth Israel Deaconess Hospital – Plymouth Emergency Department

In FY23, BID-Plymouth's ED saw 29,253 unique patients. More than half of ED patients (59.3%) were over the age of 46. 52.2% of patients were female and 47.8% were male.

Table 3: BID-Plymouth Emergency Department Patient Demographics	FY2021 Count	FY2021 Percent	FY2022 Count	FY2022 Percent	FY2023 Count	FY2023 Percent
Total	27,010	100%	28,387	100%	29,253	100%
Age: 0 to 17	2,574	9.5%	3,044	10.7%	3,074	10.5%
Age: 18 to 25	2,312	8.6%	2,303	8.1%	2,231	7.6%
Age: 26-45	6,300	23.3%	6,385	22.5%	6,592	22.5%
Age: 46-64	7,053	26.1%	7,069	24.9%	7,079	24.2%
Age: 65+	8,771	32.5%	9,586	33.8%	10,277	35.1%
Gender: Male	13,042	48.3%	13,633	48.0%	13,986	47.8%
Gender: Female ¹²	13,968	51.7%	14,754	52.0%	15,267	52.2%
Race: White	25,428	94.1%	26,389	93.0%	26,941	92.1%
Race: Black or African American	882	3.3%	960	3.4%	1,072	3.7%
Race: American Indian or Alaska Native	32	0.1%	30	0.1%	41	0.1%
Race: Asian	99	0.4%	137	0.5%	143	0.5%
Race: Native Hawaiian or Other Pacific Islander	>11	0.0%	18	0.1%	22	0.1%
Race: Other ¹³	427	1.6%	661	2.3%	813	2.8%
Race: Patient Declined	142	0.5%	192	0.7%	221	0.8%
Ethnicity: Hispanic/Latino	657	2.56%	865	3.22%	965	3.54%
Ethnicity: Not Hispanic/Latino	23,547	91.73%	24,677	91.82%	24,922	91.42%
Ethnicity: Unknown	1,467	5.71%	1,332	4.96%	1,374	5.04%
Payer Source: Commercial	9,308	34.5%	9,751	34.4%	9,959	34.0%
Payer Source: Medicaid	6,380	26.6%	6,739	23.7%	6,833	23.4%
Payer Source: Medicare	9,267	34.3%	9,907	34.9%	10,539	36.0%
Payer Source: Other ¹⁴	2,055	7.6%	1,990	7.0%	19,22	6.6%
Payer Source: Unknown	0	0.0%	0	0.0%	0	0.0%

F1.a.ii Need by Patient Panel:

Provide supporting data to demonstrate the need for the Proposed Project. Such data should demonstrate the disease burden, behavioral risk factors, acuity mix, health disparities, or other objective Patient Panel measures as noted in your response to Question F1.a.i that demonstrates the need that the Proposed Project is attempting to address. If an inequity or disparity is not identified as relating to the Proposed Project, provide information justifying the need. In your description of Need, consider the principles underlying Public Health Value (see instructions) and ensure that Need is addressed in that context as well.

The needs of the communities served by BID-Plymouth have outgrown its ED. Originally built more than 30 years ago in 1993, BID-Plymouth's ED was designed to accommodate a volume 25,000 visits annually. In FY2023, BID-Plymouth provided emergency care to 43,609 patients, nearly 75% more patients than intended when the ED was designed. The ED is significantly undersized, and patients are experiencing increasingly long wait times to be seen by a provider and moreover, may then be placed in a hallway bed to receive care. 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 insufficient and strained resources. These problems will continue without addressing the size of the

¹² For confidentiality, "Female" includes patients whose gender is other or unknown.

¹³ "Other" is a choice for patients to select if they do not feel that their race/ethnicity is reflected in the list of choices.

¹⁴ Includes self-pay, health safety net, and liability coverage other than worker's compensation for an injury event.

Hospital's ED. To that end, the Proposed Project is necessary to provide BID-Plymouth sufficient capacity to meet the needs of the community for timely emergency care in a space that promotes safety, efficiency, and privacy.

As noted above, BID-Plymouth's ED was not built to accommodate its current patient volume. The ED routinely experiences overcrowding which results in long wait times and treating patients in hallway stretchers. Even during periods without overcrowding, most patients are seen in shared spaces, such as cubicles and bays, which do not provide acoustic privacy and that have sub-optimal configurations of supporting infrastructure and/or equipment to allow for efficient patient care.

Plymouth and the surrounding communities served by the Hospital are growing at a significant rate. The town's current population of 68,957 represents an increase of 13.01% since the most recent census, which recorded a population of 61,018 in 2020.¹⁵ Correspondingly, the volume of patients seeking care in BID-Plymouth's ED is rising. In FY2023, the ED managed 43,609 visits, an 11% increase since 2020.

Table 4: Historical ED Volume	FY2020	FY2021	FY2022	FY2023	Change 2020-2023
ED Visits	39,142	40,180	42,367	43,609	11.4%

As demonstrated by the table above, BID-Plymouth's ED has been operating significantly over capacity for a number of years. To address the ED's historically high volume, BID-Plymouth has implemented several measures to encourage patients to utilize the most appropriate care setting for their health concern. As a result, since 2014, the share of low acuity visits has decreased by half, from 36.3% to 15.8% in FY2023. Conversely, moderate acuity visits have increased from 62.6% in FY2014 to 82.9% in FY2023.¹⁶ Despite these successful efforts to treat lower acuity patients in the primary or urgent care setting, the ED continues to see more moderate and high acuity patients are seeking care in the ED.

In FY2020, despite serving almost 40,000 patients, the ED was able to initiate treatment, on average, within 11 minutes of the patient's arrival to the Department. Wait times jumped to 59 minutes the following year in FY2021 and are currently above 90 minutes (FY2023). The difference between wait times in FY2020 and FY2023 is a nearly 700% increase. Similarly alarming is the spike in patients who are leaving the ED before being seen by a physician. In FY2020, 363 patients left without being compared to 1,123 patients in FY2023, which saw a decrease from FY2022. These patients represent an unmet need in the community that must be addressed through increased capacity, greater throughput, and reduced wait times. The following table illustrates the impact on patients and care delivery due to high volume.

Table 5: Historical ED Utilization	FY2020	FY2021	FY2022	FY2023	Change 2020-2023
Avg. Arrival to Treatment Space (minutes)	11	59	90	91	727%
Number of LWBS	363	582	1,254	1,123	209%
Number of Eloped ¹⁷	157	185	262	299	90.4%
Avg. TLOS - All Patients	391	440	475	468	19.7%
Median TLOS - All Patients	279	311	324	329	17.9%
Avg. TLOS - Admitted & Acute Transfers	480	594	675	693	44.3%
Median TLOS - Admitted & Acute Transfers	365	438	466	521	42.7%

Without the space and resources provided through the Proposed Project, BID-Plymouth's patients will continue to wait longer and longer to be seen in the ED, while more patients decide to forego care until their

¹⁵ *Plymouth, Massachusetts Population 2024*, World Population Review, <https://worldpopulationreview.com/us-cities/Plymouth-ma-population> (last accessed July 23, 2024).

¹⁶ High acuity case have remained stable, with a range of 1.3% and 1.7% between FY2014 and FY2023.

¹⁷ An eloped patient is one who had care initiated in the ED or a Medical Screening exam was performed, but left prior to treatment or discharge by provider.

condition worsens and more acute, higher cost, treatment is required. Creating sufficient capacity within the Hospital's ED will improve wait times and care delivery.

In order to meet the community's current and projected need for emergency services, the Hospital determined that a total of 67 treatment beds would be needed. The addition of 17 treatment beds will allow for approximately 65,000 visits annually, as well as the timely movement of patients to treatment rooms from the waiting room, in turn reducing delays in treatment. The ability to timely move patients from the waiting room to a treatment room not only improves care delivery, but improves the patient experience by providing a private, more comfortable environment during a what is usually a stressful time for patients experiencing a medical emergency. Through the addition of the requested beds, the ED will be able to accommodate demand and modest projected growth in volume consistent with population projections.

Annually, Plymouth's population is growing at a rate of 3.52% and is expected to grow by an additional 10,000 residents by 2035.¹⁸ Anticipating this moderate population growth, BID-Plymouth anticipates ED volume will continue to grow 2% each year. The table below provides the Hospital's volume projections for the first five years following the opening of the new ED.

Table 6: Projected Volume	Year 1	Year 2	Year 3	Year 4	Year 5
ED Visits	44,481	45,371	46,296	47,274	48,326

In addition to increasing the ED's capacity, the redesigned space will include physiologic patient monitoring with upgraded technology including integration into the electronic medical record ("EMR") as well as medical gas capabilities at each treatment bed, allowing greater flexibility to treat more complex and higher acuity patients in all spaces rather than waiting for an appropriately resourced bed to become available. Similarly, the expansion of a vertical treatment unit will allow staff to quickly move patients out of the waiting room and initiate treatment for low and moderate acuity patients. By cohorting patients of similar severity, the Hospital will be able to utilize private treatment beds for higher acuity patients, while also ensuring that the ED can flex the vertical treatment space as needed when demand for more complex care is higher than normal. In addition to the expanded and improved patient care spaces, the Proposed Project will provide needed administrative space for clinical staff to facilitate the movement of patients more efficiently from registration to treatment space to discharge from the ED.

As part of the Proposed Project's goal to meet the needs of the Hospital's Patient Panel, the new ED will more than double the ED's capacity to care for patients experiencing acute behavioral health emergencies. In FY2023, the Emergency Services Program completed 2,044 assessments in the Hospital's ED, but only had seven (7) dedicated beds. The current mismatch of patients to beds resulted in an average length of stay of 22.7 hours in FY2023. As with the current unit, the expanded unit will be physically separate from the main ED in order to maintain a calmer, quieter, more therapeutic environment that will promote the de-escalation or stabilization of patients that is harder to achieve in the main ED. Furthermore, the new space will allow for more than one age population to be cared for by creating a barrier between the two sides. Currently, the ED is unable to care for older adults in the behavioral health unit because of limited accessibility. Through the Proposed Project, not only will the ED be accessible to older adults, but it will allow for older adults to be cared for simultaneously to children or adolescents because of the ability to bifurcate the unit. More broadly, providing a dedicated space specifically designed to meet the needs of patients seeking non-medical care is a widely recognized best practice in delivering high-quality, patient-centered care.¹⁹ The unit will be staffed by dedicated clinicians, including psychiatrists, psychologists, and licensed social workers, with experience to work with, treat, and care for patients with behavioral health needs. Patients will be screened for social determinant of health needs and will be provided with internal

¹⁸ Massachusetts Population Projections, UMass Donahue Institute, <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections> (last accessed July 23, 2024).

¹⁹ 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).

and external referrals as needed. Through this expanded unit, the Hospital be able to provide treatment in a setting the promotes improved patient experience and outcomes.

In sum, the Proposed Project will right-size the ED to meet patient demand and significantly improve the delivery of care for patients seeking emergency services. In addition to expanding the ED's physical footprint, the renovated layout will reconfigure clinical and administrative spaces to maximize patient flow so that patients can begin receiving treatment in the most appropriate area for their condition, including those seeking behavioral health care. The Proposed Project seeks to ensure the Hospital can provide timely, high-quality emergency care for its Patient Panel and the communities it serves.

F1.a.iii Competition:

Provide evidence that the Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized measures of health care spending. When responding to this question, please consider Factor 4, Financial Feasibility and Reasonableness of Costs.

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. First, the provision of ED care is a current service-line at the Hospital and the Applicant is not seeking to increase ED patient volume through the Proposed Project. Rather, the goal of the proposed Project is to right-size the ED to accommodate current and projected demand. In addition, the Proposed Project is necessary to create a physical environment that enhances care delivery and promotes positive health outcomes. As emergency services are a necessary and integral part of the care continuum, the Hospital must ensure timely access and appropriate care settings. To that end, the Proposed Project will ensure the Hospital has the resources to best serve its Patient Panel without negatively impacting health care costs.

Conversely, the Applicant anticipates the Proposed Project will reduce unnecessary spending in the ED resulting from overcrowding. Wait times in the ED have been shown to have a significant impact on the total cost of care for patients.²⁰ 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 %. For example, during times of high volume, including Code Help²¹, the ED must bring on additional staff, relying on per diem staff or overtime staff. Accordingly, the Hospital's goal of reducing waiting times by 60 minutes after three years of implementation will likely reduce the overall cost of care for ED patients by a significant portion, thereby reducing TME. In addition, because the Proposed Project includes an expansion of the Hospital's dedicated behavioral health unit within the ED, the Hospital expects a reduction in ancillary resources needed to care for this patient population, such as sitters, security officers, etc., when their care is provided outside of the dedicated unit. Accordingly, 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.

²⁰ Oing Huang *et al.*, *The impact of delays to admission from the emergency department on inpatient outcomes*, 10 BMC EMERGENCY MEDICINE 16 (2010).

²¹ 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.

F1.b.i Public Health Value /Evidence-Based:

Provide information on the evidence-base for the Proposed Project. That is, how does the Proposed Project address the Need that Applicant has identified.

As described in the previous section, the Hospital's ED is experiencing significant levels of overcrowding due to insufficient space to treat patients presenting in the ED. As a result, patients are waiting longer and longer to be seen, or deciding to forego the services they were seeking. In order to address the community's current and projected need for emergency care, the Proposed Project will expand the ED's footprint to accommodate 17 new beds resulting in a total of 53 private treatment rooms, of which a 16-beds will be located in a unit dedicated to patients experiencing acute behavioral health emergencies, as well as a 10-bed vertical treatment area. The expanded footprint will provide needed administrative space for clinical staff to facilitate the movement of patients more efficiently from registration to treatment space to discharge from the ED. The efficacy/ability of the Proposed Project to address ED overcrowding and the associated problems is well-documented in the literature.

Overcrowding and Impact to Health Outcomes

Overcrowding is defined by a high volume of patients compromising Department's ability to efficiently manage patient flow because of insufficient resources.²² The first and most obvious consequence of overcrowding is an increase in patient wait times.²³ 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 to leaving before being seen by a physician. All of these factors contribute to reduced health outcomes.²⁴ Specifically, research has shown that patients who leave without being seen are more likely to experience worsening health conditions that result in a subsequent ED visit and hospitalization.²⁵

With respect to the quality of care, overcrowding frequently results in care being provided in ED hallways. This provision of care is associated with higher levels of patient morbidity and mortality. 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. One cause of inconsistent monitoring is from a breakdown of communication and the effective coordination of care.²⁶ Staff are more likely to be overwhelmed from insufficient resources and experience confusion among patient assignments. In sum, overcrowding caused by more patients in need of care than the ED can treat due to limited capacity negatively affects quality of care, increases the likelihood of adverse outcomes, and promotes staff burnout and turnover.

Dedicated Behavioral Health Unit

It is well-documented that traditional EDs are not designed for the treatment of patients experiencing acute behavioral health emergencies.²⁷ The chaos and confined spaces of an ED can be distressing, contribute to a patients anxiety, and may worsen the psychiatric symptoms for which the patient is seeking treatment.²⁸ 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.²⁹ As a result, these patients may actually experience worsening symptoms and health outcomes. For behavioral health patients who seek care at the ED, studies have shown there are measures EDs can take to promote a more beneficial experience, in turn improving health outcomes.³⁰ The first best practice is to create a dedicated space separate from the main ED.³¹ This environment should quiet and calming and designed around the needs of patients with non-medical

²² Marina Sartini et al., *Overcrowding in Emergency Department: Causes Consequences, and Solutions—A Narrative Review*, Healthcare (Basel) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498666/> (Aug. 25, 2022).

²³ *Id.*

²⁴ Ula Hwang et al., *Emergency Department Crowding and Decreased Quality of Pain Care*, Academic Emergency Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498666/> (Dec. 2008).

²⁶ John R. Richards et al., *Providing Care in Emergency Department Hallways: Demands, Dangers, and Deaths*, Advances in Emergency Medicine, <https://www.hindawi.com/journals/aem/2014/495219/> (Dec. 25, 2014).

²⁷ Kimberly Nordstrom et al., *Boarding of Mentally Ill Patients in Emergency Departments: American Psychiatric Association Resource Document*, Western Journal of Emergency Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6754202/> (Sept. 2019).

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Supra* note 19.

³¹ *Id.*

conditions.³² When the goal is to calm the patient, the result is more likely to be a patient who can participate in their immediate treatment.³³ In addition, these spaces should be staffed by dedicated clinicians with experience to work with, treat, and care for patients with behavioral health needs. Through the use of dedicated spaces and specialized staff, EDs can provide more effective treatment and improve health outcomes.

F.1.b.ii Public Health Value /Outcome-Oriented:

Describe the impact of the Proposed Project and how the Applicant will assess such impact. Provide projections demonstrating how the Proposed Project will improve health outcomes, quality of life, or health equity. Only measures that can be tracked and reported over time should be utilized.

To assess the impact of the proposed Project, the Applicant will report on the following measures of patient satisfaction and quality of care. The measures are discussed below and will be reported to DPH on an annual basis following implementation of the Proposed Project.

1. **Access - Left Without Being Seen:** Through a redesigned physical space and new patient throughput processes, BID-Plymouth will be able to move patients to exam rooms more quickly, reducing wait time, overcrowding and the walk-out 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 #1	Baseline	Year 1	Year 2	Year 3
Percent of patients who leave without being seen	2.6%	2.0%	1.9%	1.6%

2. **Access – Door to Treatment Area Time:** Patients will be evaluated to determine the amount of time it takes for the individual to *move* from registering as a patient in the ED to being seen by a physician (or equivalent, such as a nurse practitioner).

Numerator: Total minutes from registration to treatment area of all ED patients

Denominator: Total number of ED patients

Quality Measure #2	Baseline	Year 1	Year 2	Year 3
Average time door to treatment area (minutes)	91	60	45	30

3. **Emergency Department Patient Satisfaction:** The Hospital expects patient satisfaction, as reported through the HCAHPS Survey, in three areas to improve as a result of the Proposed Project: Comfort in Waiting Area, Waiting time to treatment areas, and Informed about delays. As these measures are established and reported by HCAHPS, a numerator and denominator is not available.

Quality Measure #3	Baseline	Year 1	Year 2	Year 3
Comfort in waiting area	67.41	70	72	75
Waiting time to treatment area	66.15	70	72	75
Informed about delays	64.14	69	72	75

³² Lindsay Kalter, *Treating Mental Illness in the ED*, Association of American Medical Colleges, <https://www.aamc.org/news/treating-mental-illness-ed> (Sept. 3, 2019).

³³ *Supra* note 27.

F1.b.iii

Public Health Value /Health Equity-Focused:

For Proposed Projects addressing health inequities identified within the Applicant's description of the Proposed Project's needbase, please justify how the Proposed Project will reduce the health inequity, including the operational components (e.g. culturally competent staffing). For Proposed Projects not specifically addressing a health disparity or inequity, please provide information about specific actions the Applicant is and will take to ensure equal access to the health benefits created by the Proposed Project and how these actions will promote health equity.

The Proposed Project will work to reduce health inequity through increasing and improving access to emergency services to the Plymouth community. BID-Plymouth welcomes all patients and does not discriminate on the basis of age, race, ethnicity, gender/gender-identity, physical ability, sensory or speech limitations, or religious, spiritual and cultural beliefs, nor a patient's ability to pay or payer source. BID-Plymouth has implemented the following initiatives to facilitate equitable access to its services, including radiation oncology.

A. Ensuring Language Accessibility

BID-Plymouth is committed to ensuring its healthcare providers and staff have the opportunity to establish direct relationships with all patients. To that end, BID-Plymouth offers language services in person, remote video, and telephonically at no-charge in order to enable meaningful and accurate communication between staff and patients. Interpreter services are available for over 100 different languages, including American Sign Language, and can be used 24 hours/7 days a week. Trained medical interpreters act as a conduit to facilitate communication between patients, families, staff, and healthcare providers. In addition, BID-Plymouth's medical interpreters assist patients and family members with outpatient testing and treatment, during hospitalizations and in the Emergency Department. Trained medical interpreters inform patients and families about procedures, medications, social services, financial topics, and other important information.

As its Patient Panel grows in both size and diversity, the Hospital's Interpreter Services Department has expanded to meet its patients' needs. The number of requested and completed language services encounters in FY 2021 was 5,235 and increased 55% to 8,111 in FY 2022. BID-Plymouth currently employs one (1) full time medical interpreter/coordinator and one (1) per diem medical interpreter. In addition, BID-Plymouth has 12+ iPads, at least one for each unit, used for video remote interpreting (VRI), which helps reduce wait times and increases effectiveness and efficiency of language services. BID-Plymouth is also currently contracted with three vendors to meet language demands: two that provide VRI and OPI (over the phone) language services and two that provide in person/on site interpreters. In addition, assistive listening devices, such as PocketTalkers and telephone volume amplifiers, are available to assist deaf and hard of hearing patients and family members.

B. Social Determinants of Health

BID-Plymouth also addresses health equity by proactively addressing social determinants of health that may interfere with patient care. Patients are screened to determine their home situation, smoking status, any drug and/or alcohol usage, and supportive services, including family members and any transportation barriers. Patients are also screened for mental health concerns during this visit. Based on these assessments, appropriate interventions are arranged as needed. Social Work referrals may be made to connect patients with services, including financial counseling, mental health services in the community, ride assistance programs, and physical therapy programs for patients who qualify.

Additionally, the Hospital has partnered with NeighborWorks, the Plymouth Coalition for the Homeless, and Harbor Community Health to support the medical, social, physical, and economic needs of newly settled migrants in the community. Through its partnership, BID-Plymouth has donated over-the-counter medications, infant formula from its birth center as well as baby items collected from a Hospital drive and funding for diaper, wipes and other infant care products. The Cancer Center has provided community cancer screenings with free transportation to and from treatment as well as funding for patients for food, fuel, and other necessities.

Recently, BILH created the Massachusetts Institute for Equity-Focused Learning Health System Science (the "Institute") in collaboration with leaders from other Massachusetts healthcare systems. Funded by a grant from the federal Agency for Healthcare Research and Quality ("AHRQ"), the Institute seeks to

expedite equity-focused research to address health disparities and will work to ensure research of equity measures and social determinants of health is guided by common data standards and led by a diverse group of researchers representative of the Commonwealth's residents and their lived experiences.

C. REAL Data Collection

BILH recently launched a new initiative to consistently capture more detailed and complete demographic information from patients in furtherance of an organizational culture that embraces diversity, equity, and inclusion. Capturing patient diversity demographics, including gender and race, ethnicity, and language ("REAL Data") is foundational to understanding and addressing health disparities in the community.

Through this initiative, BILH created a multidisciplinary team of representatives from across the System including staff from patient access services, information services, nursing, social work, community benefits and community relations teams. Working with patient representatives, the multidisciplinary team established a standard set of data along with best practices and processes in order to more consistently capture the data in the EMR which will better inform the decisions made by BILH to improve care delivery.

F1.b.iv Provide additional information to demonstrate that the Proposed Project will result in improved health outcomes and quality of life of the Applicant's existing Patient Panel, while providing reasonable assurances of health equity.

The Proposed Project will improve health outcomes and quality of life for BID- Plymouth's patient panel by improving the delivery of emergency services to Plymouth and the community it serves. Moreover, BID- Plymouth is committed to promoting health equity and will ensure all patients can access the Hospital's services, can effectively communicate with their providers, and will be connected to services outside of the Hospital as required. By right-sizing the Hospital's ED through the Proposed Project, the Hospital will be able to provide more timely emergency services in the most appropriate care setting for the patients who rely on the Hospital's ED. As further described in Section F1.b.i, waiting times and overcrowding in the ED negatively impact patients as well as staff. To that end, the Proposed Project seeks to ensure the physical footprint of the Hospital's ED matches the needs of the community. Therefore, the Applicant expects the Proposed Project to result in improved health and quality outcomes in furtherance of health equity.

F1.c Provide evidence that the Proposed Project will operate efficiently and effectively by furthering and improving continuity and coordination of care for the Applicant's Patient Panel, including, how the Proposed Project will create or ensure appropriate linkages to patients' primary care services.

As previously discussed in Section F.1.a.ii., the Proposed Project is centered on improving care continuity within the Hospital's ED, from triage to treatment to discharge from the ED. The renovated space will enhance the ED's clinical capabilities by offering dedicated spaces for different acuity levels that can be flexed up or down to meet the needs of the community. One of these dedicated spaces is for the exclusive use by patients experiencing a behavioral health emergency. The behavioral health unit will be designed to best meet the needs of this patient population during an acute emergency and establish a smooth transition to the next appropriate level of care through an inpatient admission or in the community. A core tenet of the care provided in the behavioral health unit is to stabilize the patient so that they can be referred to the least intensive setting following the ED.

In addition to promote access to care in the most appropriate setting, BILH and BID-Plymouth have implemented several measures to ensure patients are accessing the best point of care for their condition. These initiatives seek to encourage patients who do not require emergency care to access care at an urgent care clinic or from their PCP. First, BID- Plymouth is working with both primary care and urgent care to get patients to consider going to urgent care as first option for many health concerns that do not require emergency care. There are incentives in place for primary care providers to have patients call their office first to help them decide the best course of care. One such example is BID-Plymouth's agreement with Atrius Health which recently opened a new location in Plymouth. Patients will be encouraged to speak with a primary care physician or specialist for urgent issues but will be directed to BID-Plymouth for conditions that require a higher level of care. Furthermore, BILH recently launched a resource guide for

newly arrived migrants, *Healthcare in Massachusetts: Important Information for Your First Few Months*. The resource guide, which is available in English, Spanish, and Haitian Creole, provides an explanation of care available in the state, how and when to access various levels of care, and other important information such as health insurance enrollment and cash assistance programs. Through these efforts to educate patients and providers, as well as expand access to urgent care in the community, BID-Plymouth is taking appropriate steps to facilitate the appropriate utilization of emergency services, further maximizing the limited capacity it currently has available.

Additionally, BID-Plymouth participates in the MassHealth ACO Program through BIDCO, part of BILHPN and its clinically integrated network. In furtherance of the goals of the Program, BIDCO strives to increase access to high quality care for members who are more likely to have unmet SDoH needs than the commercially insured population. A significant portion of BIDCO's efforts to improve health care are accomplished through care coordination. Specifically, BIDCO's data analysis and risk management tools are provided to BID-Plymouth providers, including a Population Health Management Tool that helps primary care physicians monitor patients' health and manage chronic conditions. BID-Plymouth's links to primary care providers are vital to providing high-quality care and promoting coordination of care. These primary care linkages will continue to enhance care for BID-Plymouth patients, specifically in promoting appropriate and timely care utilization.

With respect to the services provided by the Hospital, BID-Plymouth promotes care coordination and effective communication with primary care providers and specialists through an integrated medical record system. With respect to the Proposed Project, BID- Plymouth's EMR serves as the primary linkage between the Hospital's ED, inpatient floors, affiliated specialists, and community primary care providers ("PCP"). The Hospital's EMR allows for patients' medical information created in the ED to be immediately accessible by other Hospital providers, allowing the real-time transfer of information as patients move from the ED to an inpatient floor. Similarly, information is available to community providers once a patient is discharged from the ED or an inpatient admission for follow-up either with a specialist or their PCP. The EMR also allows authorized providers outside of the Applicant to view their patients' records and send progress notes back for improved continuity of care. This integration ensures that the BID- Plymouth patient panel benefits from care coordination through better outcomes and improved quality of life as discussed in F1.b.ii.

In conclusion, these measures demonstrate BID-Plymouth's commitment to delivering the right care in the right setting at the right time and the Proposed Project seeks to ensure the Hospital is able to continue serving the community with timely, high-quality health care. Timely access to emergency care is an essential component of the care BID-Plymouth provides the community and therefore is needed to improve continuity and coordination of care for the Applicant's Patient Panel.

F1.d Provide evidence of consultation, both prior to and after the Filing Date, with all Government Agencies with relevant licensure, certification, or other regulatory oversight of the Applicant or the Proposed Project.

The Applicant carried out a diverse consultative process with individuals at various regulatory agencies and departments regarding the Proposed Project. The following individuals and agencies are some of those consulted regarding this Project:

- Massachusetts Department of Public Health, including but not limited to: Dennis Renaud, Director, Determination of Need Program; Jennica Allen, Manager of Community Engagement Practices, Bureau of Community Health and Prevention; Elizabeth Maffei, Program Manager, Bureau of Community Health and Prevention; Katelyn Teague, Community Health Planning + Engagement Specialist, Bureau of Community Health and Prevention
- Massachusetts Executive Office of Health and Human Services
- Health Policy Commission
- Center for Health Information and Analysis
- The Centers for Medicare & Medicaid Services

F1.e.i Process for Determining Need/Evidence of Community Engagement:

For assistance in responding to this portion of the Application, Applicant is encouraged to review *Community Engagement Standards for Community Health Planning Guideline*. With respect to the existing Patient Panel, please describe the process through which Applicant determined the need for the Proposed Project.

As more fully described in Section F1.a.ii, the Applicant primarily determined the need for the Proposed Project due to significant increases in emergency department utilization illustrated in annual patient visits to the ED. To more fully engage the community in the development of the Proposed Project, the Hospital hosted several meetings to inform the community on the state of the current ED, what the Proposed Project includes, and to answer any questions.

The Hospital presented the Proposed Project to the Hospital's Patient and Family Advisory Committee ("PFAC") and the Hospital's Community Benefits Advisory Committee ("CBAC") to inform them of the Proposed Project and solicit their feedback in the development of the Proposed Project. 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.

First, the Proposed Project was presented to the Hospital's CBAC on December 11, 2023. The presentation was attended by 12 members of the CBAC and led by Donna Doherty, the Hospital's Vice President of Patient Care Services and Chief Nursing Office. Committee members asked about utilization trends and how the Proposed Project will meet the community's need for emergency, inpatient, and behavioral health care.

Second, the Proposed Project was presented to the Hospital's PFAC on January 10, 2024. The presentation was attended by nine (9) individuals, including four (4) members of the PFAC. Members asked measures to take pressure off the ED. Examples provided were the Hospital's new Clinical Decision Unit, new urgent care locations in Plymouth and Middleboro, and an initiative led by the Hospital asking primary care and urgent care providers to encourage patients to utilize urgent care centers as first option for health concerns that do not require emergency care.

Lastly, the Hospital hosted a public meeting on January 8, 2024. Ten (10) members of the community joined the virtual presentation hosted by Karen Peterson, Manager of Community Benefits and Community Relations, and Keven Coughlin, Present and Chief Executive Officer of BID-Plymouth. Feedback was overwhelmingly positive of the Proposed Project, and the community is excited about the Hospital's plans for emergency care.

F1.e.ii Please provide evidence of sound Community Engagement and consultation throughout the development of the Proposed Project. A successful Applicant will, at a minimum, describe the process whereby the "Public Health Value" of the Proposed Project was considered, and will describe the Community Engagement process as it occurred and is occurring currently in, at least, the following contexts: Identification of Patient Panel Need; Design/selection of DoN Project in response to "Patient Panel" need; and Linking the Proposed Project to "Public Health Value".

To ensure sound community engagement throughout the development of the Proposed Project, the Applicant and BID-Plymouth took the actions detailed in Factor F1.e.i. In addition, the Applicant published two legal notices announcing the Proposed Project in the Patriot Ledger on July 25, 2024, and also posted a copy of such legal notice prominently on the BID-Plymouth website. Please refer to Appendix 6 for copies of the legal notices.

Factor 2: Health Priorities

Addresses the impact of the Proposed Project on health more broadly (that is, beyond the Patient Panel) requiring that the Applicant demonstrate that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

F2.a. Cost Containment:

Using objective data, please describe, for each new or expanded service, how the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment.

The Proposed Project will meaningfully contribute to and further the Commonwealth's goals for cost containment by ensuring timely and equitable access to emergency services at the lowest reasonable aggregate cost. 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 discussed previously, timely access to emergency care can reduce the cost of care and improve health outcomes, further reducing health care spending. Additionally, expanding dedicated behavioral health resources is expected to reduce spending for ancillary services when care for this patient population is provided in the ED's main area. To that end, the Proposed Project will meaningfully contribute to the Commonwealth's goals of cost containment by improving access to emergency care in the most appropriate setting and thereby lowering the overall cost of care.

F2.b. Public Health Outcomes:

Describe, as relevant, for each new or expanded service, how the Proposed Project will improve public health outcomes.

The Proposed Project will improve public health outcomes by providing patients timely access to high-quality emergency care in the most appropriate care environment for their condition, in turn reducing delays in diagnosis and treatment. As discussed in Factor F1.a.ii, BID-Plymouth's ED was built in 1993 to serve 25,000 visits annually. Thirty years later, the ED sees almost twice as many visits as it was built to accommodate. This mismatch between capacity and volume is resulting in increased wait times, more patients leaving without being seen, and high levels of patient dissatisfaction. Historical utilization trends coupled with population projections demonstrate a clear need for the Hospital to expand capacity in order to meet current and future demand for emergency care in the community. In addition to improved access to address volume, the Proposed Project will also address the need of the community for dedicated behavioral health resources within the ED to ensure care is available for all emergency situations. These specialized behavioral health services will better equip the ED to provide high-quality care for all patients, driving improved health outcomes. Improved access to medical and behavioral health emergency services will reduce wait times, in turn improving the patient care experience and health outcomes through more timely treatment.

F2.c. Delivery System Transformation:

Because the integration of social services and community-based expertise is central to goal of delivery system transformation, discuss how the needs of their patient panel have been assessed and linkages to social services organizations have been created and how the social determinants of health have been incorporated into care planning.

The Applicant will continue to work with patients and primary care providers to connect patients to services as needed. As described in Section F1.b.iii., BID- Plymouth conducts comprehensive admission screenings that address social determinants of health, including financial barriers to care, social support, housing and transportation issues, mental health problems, and other barriers to access.

Factor 5: Relative Merit

F5.a.i Describe the process of analysis and the conclusion that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs as those have been identified by the Applicant pursuant to 105 CMR 100.210(A)(1). When conducting this evaluation and articulating the relative merit determination, Applicant 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.

This Proposal: The Proposed Project is to renovate and expand BID-Plymouth's existing emergency department.

Quality: The Proposed Project is a superior option because of the significant impact it will have on patient outcomes, quality of life, and patient satisfaction. By right-sizing the Hospital's ED to accommodate current patient need, BID- Plymouth will improve timely access to emergency services, eliminate the use of hallway beds, and provide a dedicated space for patients seeking emergency behavioral health care.

Efficiency: The Proposed Project seeks to maximize the ED's efficiency by providing sufficient capacity for the Hospital to treat patients seeking emergency care in dedicated spaces appropriate for the level of need required. Moreover, the Proposed Project will improve patient flow, create adequate clinical work space, and modernize the Department's patient monitoring equipment.

Capital Expense: The capital expenses for the Proposed Project are \$50,237,091.

Operating Costs: The maximum incremental operating expenses associated with the ED expansion are anticipated to be \$24,451,485.

Alternative Proposal: Do not renovate and expand the Hospital's ED, and continue to serve patients in the existing ED.

Alternative Quality: This alternative does not address the need of BID-Plymouth's patient population to receive timely access to emergency services in the most appropriate setting. This option would continue to drive wait times and ED overcrowding, resulting in decreased patient satisfaction, worse patient outcomes, and reduced quality of life.

Alternative Efficiency: BID-Plymouth resources are significantly strained through the operation of the existing ED and will continue to be strained under this alternative. Because the ED was built to serve half as many patients, it cannot accommodate current demand for care and as a result, patients must wait longer to be seen, which negatively impacts care delivery and places significant pressure on staff to manage large numbers of patients in a space designed for less patients. Resulting staff burnout and turnover create significant inefficiencies for the ED's operation.

Alternative Capital Expenses: There are no capital expenses under this alternative.

Alternative Operating Costs: The operating costs under this alternative option include expenses for temporary staff needed to accommodate higher periods of volume which will be eliminated by the use of permanent staff under the Proposed Project.

6.1 Community Health Initiative Narrative

A. Community Health Initiative Monies for the Proposed Project

This Application requests approval for the renovation and expansion of the Emergency Department at BID-Plymouth (the “Proposed Project”). The Maximum Capital Expenditure (“MCE”) for the Proposed Project is \$50,237,091. The breakdown of Community Health Initiative (“CHI”) monies for the Proposed Project is as follows, beginning with the MCE.

	Total	Description
MCE	\$50,237,091.00	
CHI Monies	\$2,511,854.55	(5% of Maximum Capital Expenditure)
Administrative Fee	\$75,355.64	(3% of the CHI Monies, retained by Applicant)
Remaining Monies	\$2,436,498.91	(CHI Monies minus the Administrative fee)
Statewide Initiative	\$609,124.73	(25% of remaining monies, paid to State-wide fund)
Local Initiative	\$1,827,374.18	(75% of remaining monies)
Evaluation Monies	\$182,737.42	(10% of Local Initiative Monies, retained by Applicant)
CHI Monies for Local Disbursement	\$1,644,636.76	

B. Request to Pool Funding with Another Project for the Hospital

At the time of this DoN filing, BILH recently received approval from DPH for BID-Plymouth to carry out the CHI for DoN Application # 22062915-AS. The DoN was submitted by Beth Israel Lahey Health Surgery Center, LLC for the creation of a new freestanding orthopedic surgery center to be located in Plymouth, MA. In furtherance of its CHI duties, BID-Plymouth will convene its Community and Benefits Advisory Committee (“CBAC”) to advise on the surgery center’s CHI. Should this DoN application also receive approval, the Hospital believes the community will receive the most benefit from a joint CHI that not only maximizes the CBAC’s resources but creates a pool of funding more likely to create sustainable grants and lasting change in the community. To that end, BID-Plymouth is requesting approval to carry out one CHI for both Plymouth-based DoNs.

C. Timeline for CHI Activities

BID-Plymouth will begin work on the joint CHI following the approval of DoN Application # 22062915-AS. As such, the timeline for the present application will follow the previous timeline submitted with funds to be distributed in early 2025. However, given the increase in size of the local initiative, the Hospital is requesting additional time to distribute funds over multiple years.

D. Administrative Monies

Applicants submitting a Tier 2 CHI are eligible to retain a three percent (3%) administrative fee. Accordingly, BID-Plymouth is requesting \$75,355.64 in administrative funding. These monies will support promotion of meetings, interpretation/translation, community engagement, stipends for community resident participation, additional staff time for these efforts.

E. Evaluation Overview

BID-Plymouth is seeking to use 10% of local CHI funding (\$182,737.42) for evaluation efforts. These monies will allow the Hospital to retain the expertise of the BILH Director of Evaluation and Data to develop appropriate evaluation metrics of the CHI-funded projects.