

Beth Israel Lahey Health, Inc
DON # BILH-24080714-HE

APPLICANT QUESTIONS 1

Factor 1ai: Patient Panel

Terms not defined below have the meaning set forth in the Narrative.

1. DPH is assessing the impact of the pandemic on patient volume. As such, please provide the number of unique patients served for 2018-2020 in the table below. Please note: the timeframes for the data should match the submissions in Tables 1, 3, 5, and 7 in the Narrative (Fiscal year or Calendar year)

System/ Hospital	FY2018	FY2019	FY2020
BID-Plymouth (Table 1)	NA	80,912	75,625
BID-Plymouth Oncology (Table 3)	NA	3,637	3,588
BILHPC Quincy (1)	NA	NA	NA
BILH Urgent Care Quincy (2)	NA	NA	NA
BID Milton (Table 9)	NA	59,669	54,997

The BILHPC Quincy site was acquired in FY2021. As such, the Applicant does not have data prior to FY2021. The BILH Urgent Care Quincy center opened in October 2020, which is FY2021. As such, the Applicant does not have data for this site prior to FY2021.

2. On Table 7 (Page 7 of the Narrative), Quincy Urgent Care had a very low volume (85 patients) in FY2021. Please explain the low volume in that year.

The Applicant identified another data source and has provided updated Table 7 below for Quincy Urgent Care.

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Table 7
BILH Quincy Square Patient Panel Data (Urgent Care only) Visits

Metrics	FY2021 Count	FY2021 Percent	FY2022 Count	FY2022 Percent	FY2023 Count	FY2023 Percent
Total Visits	13,621	100.0%	15,343	100.0%	14,228	100.0%
Age						
0 to 18	866	6.0%	919	6.0%	1,127	7.9%
19-64	9,129	67.0%	10,514	69.0%	9,591	67.4%
65+	3,626	27.0%	3,764	25.0%	3,510	24.7%
Gender						
Male	4,807	35.3%	5,198	33.9%	4,928	34.6%
Female	8,814	64.7%	10,144	66.1%	9,300	65.4%
Race						
Race - Unknown	13,621	100.0%	15,343	100.0%	14,228	100.0%
Ethnicity						
Ethnicity - Unknown	13,621	100.0%	15,343	100.0%	14,228	100.0%
Payor						
Commercial	9,221	67.7%	8,899	58.0%	8,252	58.0%
Medicare	1,750	12.9%	2,301	15.0%	1,992	14.0%
Medicaid	1,348	9.9%	2,301	15.0%	1,850	13.0%
Multiple Payors	<i>Masked</i>	<i>Masked</i>	153	1.0%	142	1.0%
Other	1,304	9.6%	1,841	12.0%	1,992	14.0%

Factor 1a: Patient Panel Need

- Page 15 of the Narrative states, “there is a significant undersupply of hematology-oncology physicians in the Plymouth area.” Please provide any research or data demonstrating that the area is undersupplied in hematology-oncology physicians.

BILH uses the STRATUS ambulatory planning tool through its contract with Real Estate Strategies (“RES”). The tool applies predictive analytics to a combined dataset of market demographics from Environmental Systems Research Institute, Inc (“ESRI”) and healthcare claims from IBM Watson to project patient demand and physician need for ambulatory services. The table below captures the results for the Plymouth region.

Market Demand reflects the 5-year forecasted demand for Hematology-Oncology outpatient services in the BID Plymouth service area. The calculation(s) used to forecast future demand is based on a proprietary methodology created by RES.

Market Physician Need reflects the FTE Hematology-Oncology physician need in order to accommodate the Market Demand defined above in the BID Plymouth service area. This is calculated

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applying the above defined 5-year forecasted Market Demand against a proprietary methodology of physician productivity by specialty created by RES.

Physician Supply represents the FTE count of Hematology-Oncology physicians in the BID Plymouth service area as of 2022.

Market Unmet Demand represents the gap between the current Physician FTE Supply noted above and the Physician Supply that will be needed to provide Hematology-Oncology services to meet 100% of the 5-year forecasted Market Demand noted above.

BILH Physician FTE Supply represents the FTE count of Hematology-Oncology physicians in the BID Plymouth service area as of 2022 who are in the Beth Israel Lahey Health Performance Network.

Specialty	Market Demand	Market Physician Need	Physician FTE Supply	Market Unmet Demand (FTE)	BILH Physician FTE Supply
Hematology-Oncology	42,195	22.5	8.2	14.3	8.2

4. As part of DPH's efforts to assess the impact of the pandemic on utilization, please provide the following Utilization of Infusion Treatment at BID Plymouth data back to 2018:

Metric	2018 Count	2019 Count	2020 Count
Patient Visits for Chemotherapy by Infusion Treatment	3,226	12,890	12,532
Patients Visits for Non-Chemotherapy Infusion Treatments	1,366	6,719	6,097
TOTAL	4,592	19,609	18,629

The Applicant changed electronic health record systems in 2018 (to Meditech). As such, only partial year Meditech data is reflected for 2018.

5. Page 15 of the Narrative states, "The average new patient appointment wait time to the hematology-oncology clinic in FY23 was 50 days, nearly triple the 18 days average wait in FY21." Please provide the following information:

Please see completed table, below.

Average New Patient Appointment Wait Time for BID-P Hematology-Oncology Clinic

Metric	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Wait time (In days)	20	26	25	18	27	50

6. On page 17 of the Narrative, it states that the need for imaging equipment at the Quincy satellite was assessed using, "referral ratios for imaging exams at their other ambulatory sites to project utilization of imaging services in the Quincy Satellite." Please provide the referral ratio data referenced in this statement.

Please see the table below for the radiology referral ratios by service and modality.

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Radiology Referral Ratios by Service and Modality.

Specialty	Radiology Assumptions				
	Diagnostic X-Ray	CT	Ultrasound	MRI	Mammography
Urgent Care	29.9%	9.5%	6.4%	0.0%	0.0%
Primary Care	5.2%	1.6%	3.6%	1.5%	14.8%
Cardiology	7.4%	7.4%	1.6%	1.5%	0.0%
Neurology	7.4%	7.4%	1.6%	1.5%	0.0%
Ob/Gyn	0.0%	0.0%	12.0%	0.0%	0.0%
Orthopedics	35.0%	0.0%	2.0%	17.0%	0.0%
Endocrine Surgery	7.4%	7.4%	1.6%	1.5%	0.0%
ENT	7.4%	7.4%	1.6%	1.5%	0.0%
Gerontology	7.4%	7.4%	1.6%	1.5%	0.0%
GI	7.4%	7.4%	1.6%	1.5%	0.0%
Hematology/Oncology	7.4%	7.4%	1.6%	1.5%	0.0%
Infectious Disease	7.4%	7.4%	1.6%	1.5%	0.0%
Pulmonary	7.4%	7.4%	1.6%	1.5%	0.0%
Nephrology	7.4%	7.4%	1.6%	1.5%	0.0%
Podiatry	7.4%	7.4%	1.6%	1.5%	0.0%
Rheumatology	7.4%	7.4%	1.6%	1.5%	0.0%

Factor 1bi: Public Health Value/ Evidence Based

7. Page 19 of the Narrative states, "There is also limited local specialty referral access to certain specialty services, including hematology-oncology, OBGYN, endocrinology, gastroenterology, pulmonology, and rheumatology services in Quincy."
 - a. Please provide any research and/or data that supports this statement.

The Applicant uses the STRATUS ambulatory planning tool through its contract with RES. The tool applies predictive analytics to a combined dataset of market demographics from ESRI and healthcare claims from IBM Watson to project patient demand and physician need for ambulatory services. The table below captures the results for the Quincy region.

Market Demand reflects the 5-year forecasted demand for outpatient services for the Specialties listed below in the Quincy service area. The calculation(s) used to forecast future demand is based on a proprietary methodology created by RES.

Market Physician Need reflects the FTE physician need for the specialties listed below in to accommodate the Market Demand in the Quincy service area. This is calculated applying the above defined 5-year forecasted Market Demand against a proprietary methodology of physician productivity by specialty created by RES.

Physician Supply represents the FTE count of physicians in the specialties listed below in the Quincy service area as of 2022.

Market Unmet Demand represents the gap between the current Physician FTE Supply noted above and the Physician Supply that would be needed to provide the specialty services listed below to meet 100% of the 5-year forecasted Market Demand noted above.

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BILH Physician FTE Supply represents the FTE count of physicians in the specialties listed below in the Quincy service area as of 2022 who are in the Beth Israel Lahey Health Performance Network.

Patient Demand and Physician Need For Ambulatory Services

Specialty	Market Demand	Market Physician Need	Physician FTE Supply	Market Unmet Demand (FTE)	BILH Physician FTE Supply
Endocrinology	19,635	6.8	11.4	-4.6	2.3
Gastroenterology	28,772	26.0	24.3	-3.7	2.7
Hematology-Oncology	64,935	34.7	21.8	12.9	0.1
OBGYN	76,523	48.6	37.9	10.7	6.7
Pulmonology	17,607	13.1	16.2	-3.1	5.6
Rheumatology	16,311	5.8	6.2	-0.4	1.2

Additionally, as highlighted in the Narrative, the Applicant met with local community health center leaders at South Cove and Manet, as well as local BILH primary care providers to understand the services that their patients have trouble accessing locally. For South Cove, as of February 2023, those services included cardiology, pediatric urgent care, and ultrasound. For other BILH primary care providers, those services include hematology/oncology, OBGYN, endocrinology, GI, pulmonology, and rheumatology. For Manet, as of March 2023, those services include gastrointestinal, endocrinology, hematology/oncology, and neurology.

- b. Please provide references to research pointing to improved outcomes associated with access to the specific specialty services that will be offered at the Quincy satellite.

Please see reference articles, below.

- **Kelly C, Holme C, Farragher T, Clarke G, BMJ Open, 6 (11) (2016) Are differences in travel time or distance to healthcare for adults in global north countries associated with an impact on health outcomes: a systematic review.**
<https://bmjopen.bmj.com/content/6/11/e013059.short>
- **Cyr ME, Etchin AG, Guthrie BJ, Benneyan JC, BMC Health Svc Res, 19 (1) (2019) pp. 1-17, Access to specialty healthcare in urban vs rural US populations: a systematic literature review.**
<https://link.springer.com/article/10.1186/s12913-019-4815-5>
- **Mseke EP, Jessup B, Barnett T, Impact of distance and/or travel time on healthcare service access in rural and remote areas: A scoping review; Journal of Transport & Health, Vol 37, July 2024**
[https://www.sciencedirect.com/science/article/pii/S2214140524000653#:~:text=Ensuring%20that%20services%20are%20within,et%20al.%2C%202008\)\)](https://www.sciencedirect.com/science/article/pii/S2214140524000653#:~:text=Ensuring%20that%20services%20are%20within,et%20al.%2C%202008)))
- **Massimo Ambroggi, et al., Distance as a Barrier to Cancer Diagnosis and Treatment: Review of the Literature, Oncologist (Dec. 20, 2015).** <https://pubmed.ncbi.nlm.nih.gov/26512045/>

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- Jewett PI, Gangnon RE, Elkin E, et al. Geographic access to mammography facilities and frequency of mammography screening. *Ann Epidemiol.* 2018;28(2):65.e2-71.e2. doi:10.1016/j.annepidem.2017.11.012. (<https://pubmed.ncbi.nlm.nih.gov/29439783/>)

8. Page 19 of the Narrative discusses the value of reducing travel burden for patients. Please provide data on the distance and time patients are currently traveling for the specialized services in the proposed Satellites.

Currently, patients living in the Quincy region are traveling between 9 miles and 28 minutes from Quincy and 30 miles and 55 minutes from Marshfield to BIDMC in Boston for a number of the services that will be provided in the new center. Services such as hematology/oncology, cardiology, neurology and obstetrics gynecology.

Additionally, patients with cancer who reside in Plymouth are traveling 25 miles and 30 minutes to South Shore Hospital in South Weymouth, 40 miles and 1 hr 10 mins to BIDMC in Boston, 40 miles and 1 hr 11 mins to Brigham & Women's Hospital in Boston, and 41 miles and 1 hr 6 mins to Massachusetts General Hospital in Boston.

These travel distances and times are based on GlobeFeed.com Distance Calculator.

Factor 2a: Cost Containment

9. Page 28 of the Narrative states, "As a licensed off-campus outpatient department of BIDMC, specialty services and most ancillaries offered through the Quincy Satellite will be at a 40% lower cost to both patients and insurers."
- a. Please clarify: the 40% lower cost to patients and insurers is being compared to the cost of receiving care in what setting?

The Quincy pro forma assumes a 40% reduction in average net patient service revenue at the Quincy satellite as compared to the cost for the same services delivered at BIDMC-licensed outpatient centers in Chestnut Hill (200 Boylston Street), Lexington (482 Bedford Street) and Needham (310 Chestnut Street).

- b. Please provide a cost comparison chart for the average cost of specialty services in the proposed off campus outpatient department versus the setting noted in the above answer.

Please refer to the table below.

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Comparison of Average Cost of Specialty Services

Specialty	Net Patient Service Revenue per Visit Other BIDMC-Licensed Outpatient Centers			NPSR per Visit (Blended + Discount) Quincy Satellite
	Commercial	Medicare	Medicaid + Other	
Cardiology	418	199	236	181
Gastroenterology	165	80	183	80
Hem/Onc	1,066	1,157	1,873	738
OBGYN	208	105	188	98
Orthopedics:	161	222	186	114
Sports Medicine	65	133	110	60
Hand	89	126	126	66
Foot and Ankle	236	260	235	147
Spine	22	68	58	28
MSK	236	260	235	147
Podiatry	91	96	161	62
Endocrine Surgery	128	75	141	65
Gerontology	518	73	N/A	44
Infectious Disease	82	78	163	56
Nephrology	284	72	186	110
Neurology	82	78	163	56
Pulmonology	144	121	216	88
Rheumatology	82	78	163	56
Urology	152	111	149	81