Beth Israel Lahey Health, Inc.

DoN #BILH-22111512-RE

Applicant Responses

1. **We note that the BILH's Patient Panel (see definition in 105 CMR 100), LHMC's patient population demographics, and utilization tables did not include any data from FY2023. Please provide FY2023 data for the following tables:**

   a. **TABLE 1: BILH PATIENT PANEL DEMOGRAPHICS (NARRATIVE PAGE 3)**

   Please note that the data in Tables 1-3 are reported for the DPH Fiscal Year, which runs from July 1 through June 30. The data provided in the DoN Application Narrative for Tables 1-3 covered DPH Fiscal Years 2020-2022.

Variables	FY2023 Count	FY2023 Percent
Total	**1,324,649**	**100%**
Age - 0 to 17	90,402	6.82%
Age - 18 to 64	812,128	61.31%
Age – 65+	422,119	31.87%
Gender - Male	547,782	41.35%
Gender - Female	774,906	58.50%
Gender – Other[1]	1,961	0.15%
Race - White	987,428	74.54%
Race - Black or African American	71,981	5.43%
Race - American Indian or Alaska Native	1,496	0.11%
Race - Asian	90,532	6.83%
Race - Native Hawaiian or Other Pacific Islander	710	0.05%
Race - Other[2]	94,601	7.14%
Race - Unknown	25,698	1.94%
Race - Patient Declined	52,216	3.94%
Ethnicity[3] - Hispanic/Latino	77,524	7.13%
Ethnicity - Not Hispanic/Latino	920,499	84.71%
Ethnicity - Patient Declined	14,301	1.32%
Ethnicity - Unknown	53,482	4.92%
Ethnicity - Other	20,883	1.92%
Payor - Commercial	625,200	47.20%
Payor - Medicare	370,908	28.00%
Payor - Medicaid	158,827	11.99%
Payor - Multiple Payers	76,406	5.77%
Payor - Other[4]	84,270	6.36%
Payor - Unknown	9,038	0.68%

[1] Patients for whom a gender is not specified or whose gender varies across visits over the time period are included in "Other."

[2] As a newly merged health system, BILH has not yet fully implemented a standardized data collection methodology for BILH Hospitals. As a result, "Other" may include patients whose race and/or ethnicity varied over time, as well as patients who did not report their race and/or ethnicity. Furthermore, patients who declined to report their race and/or ethnicity might also be captured in "Unknown" or "Patient Declined". "Other" is a choice for patients to select if they do not feel that their race/ethnicity is reflected in the list of choices.

[3] Ethnicity information is not available at the system-level for three hospitals: BID-Milton, BID-Needham, and BID-Plymouth. For the remaining BILH hospitals, ethnicity information is self-reported. Patients for whom ethnicity is not specified are included in "Patient Declined," "Unknown," or "Other," per the local facility's data collection methodology. Patients for whom ethnicity varies across visits over the time period are included in "Other."

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

b. TABLE 2: LHMC PATIENT PANEL DEMOGRAPHICS (NARRATIVE PAGE 4)

Variables	FY2023 Count	FY2023 Percent
Total	243,084	100%
Age - 0 to 17	4,838	1.99%
Age - 18 to 64	146,375	60.22%
Age – 65+	91,871	37.79%
Gender - Male	109,011	44.84%
Gender - Female	133,911	55.09%
Gender – Other[5]	162	0.07%
Race - White	205,534	84.55%
Race - Black or African American	7,171	2.95%
Race - American Indian or Alaska Native	364	0.15%
Race - Asian	13,478	5.54%
Race - Native Hawaiian or Other Pacific Islander	124	0.05%
Race - Other	11,184	4.60%
Race - Unknown	2,683	1.10%
Race - Patient Declined	2,559	1.05%
Ethnicity - Hispanic/Latino	15,137	6.23%
Ethnicity - Not Hispanic/Latino	222,885	91.69%
Ethnicity - Patient Declined	1,320	0.54%
Ethnicity - Unknown	2,495	1.03%
Ethnicity - Other	1,247	0.51%
Payor - Commercial	115,126	47.36%
Payor - Medicare	83,224	34.24%
Payor - Medicaid	20,785	8.55%
Payor - Multiple Payers	8,902	3.66%
Payor - Other	15,047	6.19%

c. TABLE 3: LHMC PATIENT POPULATION GEOGRAPHICS (NARRATIVE PAGE 5)

Geographic Origin	FY2023 Count	FY2023 Percent
Peabody	13,559	5.43%
Burlington	10,720	4.29%
Billerica	10,670	4.27%
Woburn	10,247	4.11%
Lexington	7,728	3.10%
Beverly	7,422	2.97%
Lynn	6,496	2.60%
Salem	6,125	2.45%
Danvers	6,023	2.41%
Wilmington	5,829	2.34%
Tewksbury	5,222	2.09%

[5] Patients for whom a gender is not specified or whose gender varies across visits over the time period are included in "Other."

Arlington	5,008	2.01%
Gloucester	4,913	1.97%
Reading	4,571	1.83%
Lowell	4,535	1.82%

d. TABLE 4: LHMC RADIATION ONCOLOGY PATIENT DEMOGRAPHICS (NARRATIVE PAGE 6)

Please note that the data in Tables 4-6 are reported for the BILH Fiscal Year, which runs from October 1 through September 30. The data provided for the 2023 Fiscal Year are current through July 24, 2023, as the 2023 BILH Fiscal Year is ongoing. The data provided in the DoN Application Narrative for Tables 4-6 covered the BILH Fiscal Years 2020-2022.

Variables	FY2023 Count	FY2023 Percent
Total Unique Patients	519	100%
Age - 0-17	0	0%
Age - 18-25	0	0%
Age - 26-45	24	4.62%
Age - 46-64	160	30.83%
Age - 65+	335	64.54%
Gender - Male	263	50.67%
Gender - Female	256	49.33%
Race/Ethnicity - White	460	88.63%
Race/Ethnicity - Asian	27	5.20%
Race/Ethnicity - Other[6]	32	6.17%

e. TABLE 5: LHMC RADIATION THERAPY PATIENT GEOGRAPHICS (NARRATIVE PAGE 6)

Geographic Origin	FY2023 Count	FY2023 Percent
Burlington	48	9.25%
Woburn	45	8.67%
Lexington	28	5.39%
Billerica	25	4.82%
Wilmington	25	4.82%
Tewksbury	22	4.24%
Reading	21	4.05%
Arlington	17	3.28%
Stoneham	14	2.70%
Chelmsford	13	2.50%
Andover	-	-
Bedford	-	-
Lowell	-	-
Medford	-	-
Westford	-	-

[6] For confidentiality, "Other" includes all races/ethnicities not separately listed.

f. TABLE 6: HISTORICAL UTILIZATION (NARRATIVE PAGE 9)

Treatment type	FY2023
External Beam	3,334
Stereotactic	427
IMRT	4,606
All LINAC Treatments	**8,367**
HDR	53
Total Radiation Treatments	**8,420**
Total Radiation Patients	**519**

2. **To better understand the Service Area for BILH's Patient Panel, please provide data on actual inpatient discharges and percentage of inpatient discharges by city or town in FY22 and FY23.**

Response**:** This information is only available from the Center for Health Information and Analysis ("CHIA") Massachusetts Acute Care Hospital Inpatient Discharge Dataset. Unfortunately, this dataset is only current through the end of 2021. Therefore, the data provided below is from FY21.

City/Town Name	FY21 Adult MedSurg IP Discharges[7]	% of Total
Plymouth	4,997	4.8%
Woburn	3,083	3.0%
Beverly	2,992	2.9%
Peabody	2,635	2.5%
Gloucester	2,484	2.4%
Quincy	2,241	2.2%
Boston	2,161	2.1%
Cambridge	2,136	2.1%
Billerica	2,096	2.0%
Burlington	1,974	1.9%
Dorchester	1,891	1.8%
Arlington	1,869	1.8%
Danvers	1,808	1.7%
Medford	1,559	1.5%
Wilmington	1,432	1.4%
Watertown	1,417	1.4%
Reading	1,366	1.3%
Stoneham	1,319	1.3%
Somerville	1,250	1.2%
Norwood	1,236	1.2%
Randolph	1,201	1.2%

[7] Adults Only, Excludes Psych, OB/Delivery, Other OB.

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City/Town Name	FY21 Adult MedSurg IP Discharges[7]	% of Total
Milton	1,165	1.1%
Lexington	1,157	1.1%
Waltham	1,150	1.1%
Needham	1,101	1.1%
Newton	1,062	1.0%
Winchester	1,044	1.0%
Newburyport	1,019	1.0%
JP/Roslindale	976	0.9%
Amesbury	964	0.9%
Brookline	949	0.9%
Tewksbury	948	0.9%
Dedham	943	0.9%
Lynn	938	0.9%
Haverhill	918	0.9%
Wakefield	905	0.9%
Brockton	882	0.9%
Malden	854	0.8%
Belmont	854	0.8%
Carver	845	0.8%
Kingston	817	0.8%
North Reading	790	0.8%
Ipswich	783	0.8%
Salem	772	0.7%
Middleboro	759	0.7%
Hyde Park	738	0.7%
Canton	734	0.7%
Duxbury	674	0.7%
Braintree	662	0.6%
Salisbury	646	0.6%
Revere	581	0.6%
Bedford	575	0.6%
Walpole	573	0.6%
Bourne	565	0.5%
Saugus	546	0.5%
Lowell	543	0.5%
Everett	538	0.5%
Marshfield	533	0.5%

City/Town Name	FY21 Adult MedSurg IP Discharges[7]	% of Total
Rockport	530	0.5%
Weymouth	529	0.5%
Westwood	513	0.5%
Lawrence	485	0.5%
Andover	481	0.5%
Methuen	475	0.5%
Melrose	472	0.5%
Mattapan	467	0.5%
All Other Towns	25,867	25.0%
Total	103,469	100.0%

3. **Page 7 of the narrative states, "The age of the [LINAC] units has led to frequent and lengthy downtime." Please provide data on the total downtime for each LINAC unit in FY22 and FY23.**

LINAC Unit	FY2021	FY2022	FY2023 (through June 2023)
Varian 2100	78 hours	18.5 hours	6.3 hours
Novalis Tx	32 hours	54 hours	92 hours

One of these units became obsolete in July 2023, meaning that the vendor is no longer supporting maintenance or parts for the machine. The Hospital expects a notice of obsolescence for the other unit within the next three years. Therefore, the Hospital anticipates that this downtime will increase moving forward.

4. **Page 6 of the Narrative notes that the project will include "one (1) replacement CT simulator" as well as one "(1) mobile CT unit for HDR". Please answer the following questions about these units:**

   a. **What is the year & model of the current CT Simulator and the year & model of proposed replacement unit?**

      Response: The current CT Simulator is a 2012 Philips Big Bore. The proposed replacement unit is the 2023 Philips Big Bore RT.

   b. **What is the year and model of the Proposed mobile CT unit for HDR?**

      Response: 2023 Neurologica BodyTom Elite.

   c. **Please provide data on the volume of CT Simulations performed from FY21-23.**

Year	Count of CT Simulations
FY2021	1240
FY2022	1338
FY2023 (through June 2023)	980

5. **Will the replacement LINACs and CT Simulator have any efficiencies or technological advantages compared to the current units?**

Response: Yes. The replacement LINAC has the following advantages over the current units:

- 4x increase in treatment delivery efficiency with flattening filter free (FFF) beam.
- Improved precision of radiation delivery with advanced imaging guidance. Faster three-dimensional cone beam computed tomography ("CBCT") acquisition with better imaging quality for target localization.
- Upgraded motion management system, which will improve the clinical workflow for gating and deep inspiration breath hold ("DIBH") treatment.
- Includes a surface-guided radiation system, which opens the option of tattoo-less radiation therapy for breast cancer patients.
- Has pairing capabilities between machines, which allows for seamless patient transfer between machines and avoids treatment delays.

The new CT simulator is equipped with the latest technology and designed with a more intuitive workflow to improve the efficiency of the scanning process. It also has higher quality imaging, faster reconstruction, and higher levels of integration with other systems, which supports a more precise treatment planning process.

6. **Noted on Narrative p. 17, the Applicant presented the project to Hospital's Patient and Family Advisory Committee, Community Benefits and Advisory Committee, and the LHMC Community. To better understand the Applicant's community engagement efforts, please provide a brief summary of questions and feedback raised from each of the three presentations.**

Response:

- CBAC Presentation. During the Community Benefits Advisory Committee ("CBAC") presentation on December 13, 2022, Kevin Bennett provided an overview of the need for the project, the intended benefits to patients and the community, and next steps in the process. CBAC members were interested in understanding where the new department would be located and the impact on parking, as well as understanding the DoN application and CHI processes.

- LHMC Community Presentation. During an open meeting with the LHMC community on December 20th, 2022, Kevin Bennett provided an overview of the need for the project and its benefit to our surrounding communities and outlined the next steps in the process. Community members were asked if they had any questions or comments and then provided with ample time to provide comments or ask questions. There were no questions or comments.

- PFAC Presentation. During the Patient and Family Advisory ("PFAC") meeting on February 7, 2023, Kevin Bennett presented the same information that had been shared at the CBAC meeting and public community meeting. PFAC members were provided with ample time to provide comments or ask questions. There were no questions or comments.

7. **Page 19 of the Narrative states, "If concerns around social determinants of health are identified or suspected during pre-procedure screenings and appointments, staff will provide the patient with referral resources and notify the patient's primary care provider as appropriate to encourage necessary follow-up." Please provide a description of the SDoH screening process LHMC uses to determine if concerns are present.**

   Response: LHMC has an SDoH screening tool that is built into its electronic medical record. This tool is used to screen for SDoH when patients are admitted to the Hospital. In addition, Radiation Oncology nurses screen for SDoH concerns at the time of each patient's initial consult and again before the patient starts treatment in an effort to remove any barriers to a successful course of treatment.

   LHMC, along with the other hospitals in the BILH system, as part of its standard Community Health Needs Assessment process, has developed a resource guide to highlight health and social service resources available to the community. The guide was developed in consultation with BILH Primary Care and is widely available on the LHMC website as a resource for both providers and community members. LHMC also includes a representative from the primary care team on its CBAC in an effort to provide them with additional information about available community resources through the hospital's community benefits program.

   Through its community benefits program, LHMC also maintains long-standing relationships with many community-based organizations working to meet the needs of the community related to social determinants of health. These include Councils on Aging, Aging Services Access Points, food pantries, community-based nutrition programs, YMCAs, and community health centers, among many others. As one example, LHMC partners with three Councils on Aging within the community benefits service area, along with the Merrimack Valley Food Bank to provide older adults and residents of affordable housing in Lowell with free, fresh produce throughout the summer in an effort to help to increase access to healthy food and decrease the burden of cost on these historically underserved communities.

8. **Page 2 of the CPA Report notes that one of Primary Sources of Information Used was, "Beth Israel Lahey Health, Inc. and Affiliates audited consolidated financial statements as of and for the years ended September 30, 2023 and September 30, 2022." Please clarify the months included in the audited consolidated financial statement for FY2023.**

   Response: This should read "Beth Israel Lahey Health, Inc. and Affiliates audited consolidated financial statements as of and for the years ended September 30, 2021 and September 30, 2022." BILH's fiscal year ends on September 30th, so the consolidated financial statement for FY2023 cannot yet be completed.