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:**
   1. **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]](#footnote-2) | 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]](#footnote-3) | 94,601 | 7.14% |
| Race - Unknown | 25,698 | 1.94% |
| Race - Patient Declined | 52,216 | 3.94% |
| Ethnicity[[3]](#footnote-4) - 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]](#footnote-5) | 84,270 | 6.36% |
| Payor - Unknown | 9,038 | 0.68% |

* 1. **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]](#footnote-6) | 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% |

* 1. **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% |
| Arlington | 5,008 | 2.01% |
| Gloucester | 4,913 | 1.97% |
| Reading | 4,571 | 1.83% |
| Lowell | 4,535 | 1.82% |

* 1. **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]](#footnote-7) | 32 | 6.17% |

* 1. **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 | - | - |

* 1. **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** |

1. **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]](#footnote-8)** | **% 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% |
| 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% |
| 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% |

1. **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.

1. **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:**
   1. **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.

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

Response: 2023 Neurologica BodyTom Elite.

* 1. **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 |

1. **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.

1. **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.

1. **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.

1. **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.

1. Patients for whom a gender is not specified or whose gender varies across visits over the time period are included in “Other.” [↑](#footnote-ref-2)
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. [↑](#footnote-ref-3)
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." [↑](#footnote-ref-4)
4. Includes self-pay, health safety net, and liability insurance coverage other than worker’s compensation for an injury event. [↑](#footnote-ref-5)
5. Patients for whom a gender is not specified or whose gender varies across visits over the time period are included in “Other.” [↑](#footnote-ref-6)
6. For confidentiality, “Other” includes all races/ethnicities not separately listed. [↑](#footnote-ref-7)
7. Adults Only, Excludes Psych, OB/Delivery, Other OB. [↑](#footnote-ref-8)