

Southcoast Health System, Inc.

Determination of Need Application # SHS-26021610-RE

Narrative Attachment

Addition of Linear Accelerator (LINAC) at Southcoast Cancer Center, Fairhaven, MA

February 17, 2026

Submitted By

Southcoast Health System, Inc.

101 Page Street

New Bedford, Massachusetts 02740

NARRATIVE ATTACHMENT

A. Project Description

Southcoast Health System, Inc (“Applicant” or “SHS”) located at 101 Page Street, New Bedford, MA, 02740, is filing this application for a Notice of Determination of Need (“Application”) with the Massachusetts Department of Public Health (“Department”) seeking approval for the operation of a second linear accelerator at the Applicant’s Southcoast Hospitals Group, Inc. Cancer Center (“Cancer Center”) located at 206 Mill Road, Fairhaven, MA, 02719.

SHS is a not-for-profit charitable organization primarily serving patients residing in Southeastern Massachusetts. SHS operates an integrated health delivery system that includes three hospitals, urgent care facilities, physician offices, a visiting nurse association, an ambulatory surgery center, a nursing facility, and accountable care organizations participating in the Medicare Shared Savings Program and MassHealth Medicaid ACO program.

SHS brings oncology care and expertise to the region, providing comprehensive cancer care in two convenient locations - within its Charlton Memorial Hospital at 506 Prospect Street, Fall River, MA 02720, and at the Cancer Center at 206 Mill Road, Fairhaven, MA, 02719 (together, the “SHS Cancer Program”). The SHS Cancer Program offers advanced imaging with CT, PET/CT, and MRI; medical oncology care with chemotherapy, immunotherapy, clinical trials, genetic assessments, and urgent care; and radiation oncology care with image-guided external beam therapies, high dose rate brachytherapy, and a number of specialty radiation treatments including stereotactic radiosurgery and stereotactic body therapies. In addition, the SHS Cancer Program offers surgical oncology services, a robust gynecologic oncology program, and multidisciplinary clinics, as well as cancer-related support services, including patient navigation, nutritional counseling, social work, and survivorship care. The SHS Cancer Program is accredited by the American College of Surgeons Commission on Cancer, the American College of Radiology in Radiation Oncology, the National Accreditation Program for Breast Centers, and the Quality Oncology Practice Initiative.

The SHS Cancer Program currently operates two linear accelerators providing radiation therapy: one at the Fall River location and one at the Cancer Center in Fairhaven. As further described below, SHS is now seeking Department approval to operate a second linear accelerator at the Fairhaven Cancer Center site to meet significant patient demand. SHS is proposing to reactivate a dormant linear accelerator that is already on-site (but decommissioned) at the Cancer Center, as a result of its recent replacement by a new state-of-the-art linear accelerator in September 2025. SHS is seeking approval to reactivate that dormant linear accelerator because it remains viable for use in patient care and can be (i) reactivated and used at minimal cost to SHS and the health care system in Massachusetts, because it is already installed on-site in a separate vault; and (ii) utilized to service overflow in patient demand for oncology care (thereby obviating the need to extend hours or delay essential cancer treatments if the primary linear accelerator is already in use), to serve as a back-up in the event the primary LINAC is down for any reason, and to enhance access to treatment for certain benign conditions that may respond positively to linear accelerator services.

The need for cancer treatment has grown over time at the population level and specifically for patients in the SHS community, who generally have a higher incidence of cancer and greater risk factors for cancer.¹ Between 2023 and 2025, the monthly new patient visit volume within the SHS Cancer Program grew 40%, and monthly new treatment volumes grew 30%.² The Cancer Center location in Fairhaven absorbed a disproportionate share of this growth partially due to greater space capacity and medical oncology growth as compared to the Fall River cancer treatment location. Reactivation of the dormant linear accelerator at the Cancer Center would allow SHS to address the growing need for cancer treatment

¹ See Rebecca L. Siegel et al., *Cancer Statistics, 2025*, 75 CA CANCER J. CLINICIANS 10, 10 (2025), <https://acsjournals.onlinelibrary.wiley.com/doi/epdf/10.3322/caac.21871> (projecting continued decline in cancer-related mortality through 2025, but a growing burden of disease particularly in middle-aged and young adults); Angela B. Mariotto et al., *Multiple Cancer Prevalence: A Growing Challenge in Long-Term Survivorship*, 16 CANCER EPIDEMIOLOGY BIOMARKERS & PREVENTION 566 (2007), <https://aacrjournals.org/cebp/article/16/3/566/260442/Multiple-Cancer-Prevalence-A-Growing-Challenge-in> (finding that between 1975 and 2001, an estimated 8% of the cancer survivor population was affected by cancer more than once, most commonly people whose primary cancer was breast, colorectal, or prostate cancer). See also *infra* § F1.a.ii (discussing SHS patients’ cancer incidence and risk factors for patients in Bristol County).

² See Data Appendix, Figures 2a and 2b.

among the SHS patient panel and would also allow SHS to begin treating benign conditions locally, including implementing a functional stereotactic radiosurgery program for treating essential tremors and a low dose radiation therapy program for Osteoarthritis patients. Local access to these treatment options within the SHS service area is currently limited as priority access to the existing approved linear accelerator is given to treatment of cancer patients.

Importantly, the SHS Cancer Program has over fifteen years of experience providing expert and compassionate cancer care at the local level, where patients can focus on healing as opposed to navigating additional burdens further from home. According to a report by the Center for Health Information and Analysis (CHIA), the South Coast region is greatly challenged with health care access and affordability issues.³ In addition, issues such as lower incomes, higher poverty, greater numbers of immigrants, and greater numbers of patients who speak English as a second language may all contribute to health care disparities, as experienced in the SHS community.⁴ Patient health and outcomes are greatly impacted by the foregoing challenges and inequities, underscoring the need for SHS to increase treatment capacity and provide additional access to quality radiation therapy, in a well-established, community-based setting.

This Application proposes to reactivate SHS’s dormant linear accelerator at the Cancer Center in order to support the growing need of SHS’s existing patient panel for local, quality cancer treatment. As referenced above, a new linear accelerator was purchased to replace the machine that has historically been utilized for external beam therapy at the Cancer Center. The new machine went into clinical use on September 15, 2025 at the Cancer Center, at which time the existing machine was decommissioned. If granted approval of this Application, SHS will reactivate the dormant linear accelerator already installed at the Cancer Center to support the growing patient need and enhance access to additional oncology care for its communities. This would be a cost-effective pathway to increased radiotherapy access as there would be no additional capital expenditure required and only minimal annual operating costs.

B. Factor 1 – Patient Panel, Need, Public Health Values and Operational Objectives

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

F1.a.i 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 measures, 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.

SHS Patient Panel – Overall

SHS serves a large and diverse patient panel, caring for over 360,000 patients each year based on the most recent data from FY25, as set forth in the Tables below.⁵ The SHS patient mix during FY23 through FY25, on average, was approximately 56% female and 44% male. Age demographics for this time period show that, on average, approximately 61% of the patients were in the age range of 18-64, 27% were 65 years or older, and 12% were under 18 years.

In terms of patient-reported race, in FY25, 77% reported their race as White - down slightly from 79% in the prior two fiscal years. In each of the years presented, 6% of patients reported their race as Black or African American; 1% as Asian;

³ CENTER FOR HEALTH INFORMATION AND ANALYSIS (CHIA), HEALTH INSURANCE COVERAGE AND CARE IN MASSACHUSETTS, 2015-2019: A BASELINE ASSESSMENT OF GAPS BY GEOGRAPHIC REGION 3-4 (Apr. 2022), <https://www.chiamass.gov/assets/docs/r/pubs/2022/health-equity-report-region.pdf> (“The rates of any difficulties accessing care at a doctor’s office or clinic ranged from 25.1% in Metro South to 31.2% in Southcoast. . . . Nearly one in seven residents of Southcoast reported difficulties accessing care due to being uninsured or being told the doctor’s office or clinic would not accept their health insurance type.”; “Rates of unmet health care needs due to cost ranged from 21.0% in the Cape and Islands to 31.3% in Southcoast. Rates of medical debt and problems paying medical bills in the family ranged from 18.3% in Metro Boston to 27.2% in Southcoast.”).

⁴ Shira Schoenberg, *South Coast Residents Struggle to Get Health Care, Insurance*, COMMONWEALTH BEACON (Apr. 28, 2022), <https://commonwealthbeacon.org/health-care/south-coast-residents-struggle-to-get-health-care-insurance/> (republished by the Center for Health Information and Analysis, available at <https://www.chiamass.gov/south-coast-residents-struggle-to-get-health-care-insurance>).

⁵ The data in the Tables represent the number of unique patients of SHS, rather than the number of visits.

and less than 1% as American Indian or Alaska Native and Native Hawaiian or Other Pacific Islanders. Race is self-reported, and in each of the fiscal years, 6% of SHS patients indicated “My race is not listed” and between 8-10% of patients across these years chose not to answer, indicated “I don’t know” or “Unknown” or left the space blank. On average, approximately 9% of SHS patients identified as Hispanic or Latino over this time period, and approximately 70% identified as not Hispanic or Latino. Ethnicity is also self-reported, and on average, approximately 21% of SHS patients reported “I don’t know”, “My ethnicity is not listed”, or “Unknown” or left the space blank.

SHS provides care to patients primarily from the Commonwealth of Massachusetts as demonstrated by the top 15 communities served by SHS in [Table 5](#) below. The significant majority of patients cared for by SHS (approximately 74% in FY25) reside in SHS’s primary service area in Southeastern Massachusetts. As of FY25, approximately 35% of SHS’s patients are from two (2) communities (New Bedford and Fall River). [Table 5](#) below provides a further breakdown of the FY23-25 patients from each of the top fifteen (15) cities and towns in which SHS’s patients reside.

Table 1. Southcoast Health – FY23-FY25 Patient Panel by Age

Table reflects Age Cohort attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. – Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 – Sep 2025.

Age Cohort	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
0-17	33,769	11%	39,569	12%	42,733	12%
18-64	187,947	61%	208,818	61%	226,492	62%
65+	85,544	28%	91,977	27%	98,186	27%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 2. Southcoast Health – FY23-FY25 Patient Panel by Gender

Table reflects Gender attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. – Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 – Sep 2025.

Gender	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
Female	174,215	57%	191,814	56%	206,209	56%
Male	132,933	43%	148,415	44%	161,035	44%
Unknown	112	0%	135	0%	166	0%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 3. Southcoast Health – FY23-FY25 Patient Panel by Race

Table reflects Race attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. – Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 – Sep 2025.

Race	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
White or Caucasian	244,000	79%	267,209	79%	281,488	77%
My race is not listed	18,126	6%	20,899	6%	22,679	6%
Black or African American	17,203	6%	20,012	6%	21,888	6%
I choose not to answer	7,855	3%	10,735	3%	13,840	4%
I don't know	9,988	3%	12,077	4%	13,734	4%

Unknown/Blank or Invalid	5,491	2%	4,147	1%	8,147	2%
Asian	3,577	1%	4,074	1%	4,343	1%
American Indian or Alaska Native	683	0%	797	0%	857	0%
Native Hawaiian or Other Pacific Islander	306	0%	362	0%	375	0%
Patient or Proxy does not have the clinical capacity to respond	31	0%	52	0%	60	0%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 4. Southcoast Health – FY23-FY25 Patient Panel by Ethnicity

Table reflects Ethnicity attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. – Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 – Sep 2025.

Ethnicity	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
Not Hispanic or Latino	207,285	67%	244,485	72%	259,821	71%
Unknown/Blank or Invalid	57,128	19%	46,202	14%	54,849	15%
Hispanic or Latino	25,382	8%	30,207	9%	32,357	9%
I don't know	15,531	5%	17,613	5%	18,478	5%
My ethnicity is not listed	1,724	1%	1,610	0%	1,647	0%
Patient or Proxy does not have the clinical capacity to respond	210	0%	247	0%	259	0%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 5. Southcoast Health – FY23-FY25 YTD Patient Panel by Patient Origin - Top 15 Communities

Table reflects Patient Origin attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. – Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 - Sep 2025.

City / Town	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
NEW BEDFORD, MA	62,505	20%	68,161	20%	71,501	19%
FALL RIVER, MA	52,320	17%	57,348	17%	60,530	16%
NORTH DARTMOUTH, MA	11,768	4%	12,629	4%	13,099	4%
SOMERSET, MA	10,973	4%	11,611	3%	12,129	3%
WESTPORT, MA	10,835	4%	11,523	3%	12,039	3%
FAIRHAVEN, MA	10,878	4%	11,522	3%	11,854	3%
SWANSEA, MA	10,102	3%	10,834	3%	11,245	3%
TIVERTON, RI	7,743	3%	8,390	2%	8,826	2%
WAREHAM, MA	7,589	2%	8,068	2%	8,481	2%
SOUTH DARTMOUTH, MA	7,152	2%	7,755	2%	8,100	2%
PORTSMOUTH, RI	6,472	2%	7,108	2%	7,568	2%
ACUSHNET, MA	6,832	2%	7,235	2%	7,518	2%
MIDDLEBORO, MA	6,163	2%	7,451	2%	7,401	2%
LAKEVILLE, MA	4,619	2%	5,314	2%	5,414	1%
MATTAPOISETT, MA	4,707	2%	5,013	1%	5,293	1%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 6. Southcoast Health – FY23-FY25 Patient Panel by Service Area

Table reflects Patient Panel by Service Area attributed to all Active (Patient Status = Alive) unique patients with an encounter within a Southcoast Health facility (i.e. - Hospital Based, Emergency Dept, Medical Practice, Urgent Care, Lab, Imaging, etc.). Time Period: Oct 2022 - Sep 2025.

Patient Service Area	FY23 (Count)	FY23 (% Total)	FY24 (Count)	FY24 (% Total)	FY25 (Count)	FY25 (% Total)
Primary Service Area	240,622	78%	260,928	77%	273,133	74%
All Other	66,638	22%	79,436	23%	94,278	26%
TOTAL	307,260	100%	340,364	100%	367,411	100%

Table 7. Southcoast Health – Primary Service Area

Table reflects Demographics attributed to Zip Codes located in Southcoast Health's Primary Service Area (Source: Applied Geographic Solutions – 2022 Demographics).

Zip	Population	Female Population	Male Population	% Population ≥ 65	Households	Median Household Income
02347	12,407	6,230	6,177	18%	4,630	\$107,584
02538	4,112	2,099	2,013	18%	1,711	\$84,673
02558	1,970	1,018	952	26%	943	\$39,930
02571	11,117	5,704	5,413	23%	4,719	\$71,888
02576	4,362	2,276	2,086	25%	1,806	\$91,029
02702	4,408	2,165	2,243	14%	1,602	\$111,424
02717	4,912	2,389	2,523	18%	1,780	\$99,975
02719	16,384	8,413	7,971	24%	7,104	\$82,339
02720	32,435	16,836	15,599	19%	14,373	\$57,574
02721	28,569	14,732	13,837	16%	12,323	\$49,926
02723	15,442	8,046	7,396	17%	6,772	\$51,333
02724	17,997	9,458	8,539	18%	8,123	\$46,379
02725	2,491	1,326	1,165	29%	964	\$103,104
02726	15,838	8,138	7,700	25%	6,262	\$90,932
02738	5,327	2,793	2,534	26%	2,132	\$95,432
02739	6,587	3,348	3,239	27%	2,829	\$96,656
02740	45,793	23,935	21,858	18%	19,476	\$53,296
02743	10,225	5,177	5,048	20%	4,039	\$79,559
02744	12,733	6,442	6,291	16%	5,146	\$51,235
02745	25,914	13,358	12,556	18%	10,759	\$70,553
02746	16,887	8,490	8,397	14%	6,811	\$40,917
02747	22,403	11,006	11,397	17%	7,249	\$89,952
02748	11,557	5,975	5,582	28%	4,855	\$94,765
02770	5,654	2,779	2,875	17%	2,015	\$114,433
02777	16,594	8,375	8,219	21%	6,507	\$97,022
02790	16,775	8,458	8,317	24%	6,814	\$82,615
02791	230	114	116	37%	109	\$96,739
02837	3,551	1,775	1,776	32%	1,545	\$106,768
02842	17,400	8,748	8,652	23%	7,212	\$84,125
02871	17,604	8,813	8,791	24%	7,185	\$103,057
02878	16,169	8,226	7,943	28%	6,958	\$90,474
Total	423,847	216,642	207,205	20%	174,753	\$73,180

Patient Panel Requiring Cancer Treatment

SHS's Cancer Program has experienced consistent long-term growth in the number of patients diagnosed with and/or treated for cancer over time. As demonstrated in [Figure 1a](#) set forth in the [Data Appendix](#),⁶ from calendar year 2022 through 2024, the SHS Cancer Program diagnosed and/or treated a total of 4,991 patients (1,506 in 2022, 1,673 in 2023, and 1,812 in 2024) - a growth trend which has persisted over time since approximately 2016, dipping somewhat in 2020 due to COVID before climbing to current rates.⁷ This growth trend is consistent with the growth in monthly new patient volumes which increased approximately 40% from 2023 to 2025, and with monthly new treatment volumes which increased approximately 30% from 2023 to 2025. See [Figures 2a and 2b](#).

Although historically, the distribution between female and male patients has been relatively even, from 2021 through 2024, the gap between the sexes has increased with a greater number of female patients diagnosed with or treated for cancer in each of these years. See [Figure 1b](#).

In addition, based on a review of patient volume by the top 15 most represented zip codes set forth in [Figure 3](#), there is significant growth in the number of patients receiving cancer care at SHS from 2020 through 2024 within the primary service area of SHS and, as a reference for further trend analysis, within Bristol County, Massachusetts.⁸ Therefore, the SHS Cancer Program primarily serves the local community, and based on the growth trend, there is and will continue to be strong demand for local access to oncology care.

The median age of SHS patients diagnosed or treated with cancer between 2022 and 2024 is approximately 55 years old ([Figure 4](#)), whereas, according to the most recent available data of the National Cancer Institute, the median age of patients diagnosed with cancer in the United States is 67 years old.⁹ Therefore, the SHS patient panel receiving oncology care has a younger median age of cancer diagnosis than nationally.

The most prevalent type of cancer represented among the 4,991 patients diagnosed with or treated for cancer between 2022 and 2024 is breast cancer, followed by lung, prostate, and colorectal cancer. See [Figure 5](#).

Of the 4,991 patients diagnosed and/or treated by the SHS Cancer Program from 2022 through 2024, 2,365 patients received LINAC services (699 in 2022, 766 in 2023, and 900 in 2024). These data demonstrate (i) the importance of the availability of LINAC services for the SHS Cancer Program's patient panel, as nearly 47% of Cancer Program patients received LINAC services from 2022 through 2024; and (ii) that the need for LINAC services is growing among the SHS Cancer Program's patient panel (increasing nearly 29% just between 2022 and 2024).

Payor Mix

SHS serves a large percentage of patients covered by government insurance programs. From FY23 through FY25, SHS served an average of approximately 30.6% of patients insured by Medicare Fee-For-Service, 17.1% insured by Managed Medicare, and 18.4% insured by Medicaid. Collectively, public payors make up almost 67% of SHS's payor mix in FY23 through FY25.

⁶ All labeled [Figures 1a-9](#) are included in the attached Data Appendix.

⁷ These figures reflect the number of patients with a primary cancer diagnosed and/or treated at any SHS facility. This prevents double-counting cancer patients seen across SHS facilities (except in the rare instance that a patient presents with two completely different primary cancers).

⁸ Fourteen of the top fifteen zip codes where SHS patients reside are in Bristol County- only 02878 (Tiverton, Rhode Island), the tenth most common zip code among SHS patients receiving oncology care, falls outside Bristol County.

⁹ *Age and Cancer Risk*, NAT'L CANCER INST., <https://www.cancer.gov/about-cancer/causes-prevention/risk/age> (last updated May 2, 2025) ("According to the [most recent statistical data](#) from NCI's Surveillance, Epidemiology, and End Results (SEER) Program, the median age of a cancer diagnosis is 67 years").

Table 8. Southcoast Health - FY23-25 Payor Mix

Table reflects Southcoast Health System, Inc. payor mix based on sources of Patient Service Revenue for FY2023-FY2025.

Payor	FY2023	FY2024	FY2025
	Payor Mix %	Payor Mix %	Payor Mix %
Medicare	31.5%	30.9%	29.5%
Medicare Managed Care	16.2%	17.5%	17.7%
Medicaid	3.6%	5.1%	4.6%
Medicaid Managed Care	14.1%	12.8%	15.2%
Commercial and other	34.0%	33.0%	32.4%
Self pay and free care	0.6%	0.8%	0.6%
Total	100.0%	100.0%	100.0%

The payor mix for radiation oncology patients of the SHS Cancer Program has an even higher proportion of patients insured by government payors, with an average of approximately 75% of radiation oncology patients from FY22-24 reimbursed by government payors. 24% of radiation oncology patients on average from FY22-24 are reimbursed by commercial payors.

Table 9. Southcoast Health - Radiation Oncology Payor Mix (FY22-FY24)

Table reflects payor mix for unique patients receiving radiation oncology treatment at the Cancer Program for FY2022-FY2024.

Payor	FY2022	FY2023	FY2024
	Payor Mix %	Payor Mix %	Payor Mix %
Commercial	26.2%	24.5%	21.3%
BCBS MA - Commercial	6.2%	5.1%	4.7%
BCBS Other	4.0%	4.1%	3.0%
BCBS RI - Commercial	2.1%	2.2%	2.0%
Commercial	4.9%	4.5%	2.8%
Harvard Pilgrim - Commercial	5.7%	5.6%	6.4%
Tufts - Commercial	1.5%	1.2%	0.3%
United Healthcare - Commercial	1.8%	1.8%	2.0%
Medicaid	16.2%	14.6%	12.3%
Medicaid	1.5%	2.3%	2.4%
Medicaid Managed Care	14.7%	12.4%	9.9%
Medicare	56.0%	60.4%	65.2%
Medicare	36.4%	36.6%	38.3%
Medicare Managed Care	19.6%	23.9%	26.9%
Other	1.4%	0.3%	0.8%
Attorney / Motor Vehicle	0.0%	0.0%	0.7%
Government	1.4%	0.3%	0.1%
Self-Pay	0.2%	0.2%	0.4%

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 Applicant seeks approval to establish a second linear accelerator at the Cancer Center by reactivating an existing dormant linear accelerator that is already installed (but decommissioned) on-site. As further described in this Application, the additional service capacity of a second linear accelerator at the Cancer Center will address the growing need of the SHS patient panel for high-quality radiation therapy in an accessible setting to support overall health and well-being of the SHS patient panel and address health disparities. Importantly, the Proposed Project will support the continued accessibility of radiation therapy for SHS's patient panel residing within the SHS primary service area and predominantly in Bristol County.

Need Based on Increasing Utilization

1. Increasing Patient Panel Requiring Cancer Treatment and LINAC Services

As demonstrated in F1.a.i, between 2022 and 2024, the SHS patient panel requiring cancer treatment increased steadily each year (1,506 in 2022, 1,673 in 2023, and 1,812 in 2024), reflecting an overall increase of approximately 20% over this time, a trend that has steadily and significantly increased over the past ten (10) years. Radiation therapy utilizing the linear accelerator also experienced an increase in service during this time. Between 2022 and 2024, linear accelerator patient volume increased 29% (699 patients treated in 2022 and 900 in 2024).

2. Utilization Measured by New Patient Volume Exceeds Relative Capacity Standards

As further discussed in Section F1.b.i, hospitals of similar size to SHS hospital facilities have an average of 238 new patients per linear accelerator, and among all American College of Radiology (ACR) accredited facilities, there is an average of 248 new patients per linear accelerator. Whereas, between 2016 and 2024, the Cancer Center had an average annual volume of 360 new patients for its one linear accelerator - approximately 50% higher than similar hospitals and 45% higher than other accredited facilities.¹⁰ As depicted in Figure 6, SHS's Cancer Center new patient volumes are rapidly trending higher. The Proposed Project would provide additional linear accelerator capacity to accommodate the excess volume at the Cancer Center, while continuing to provide quality care in accordance with SHS's high standards for safety.

3. Increased Demand for Innovative Treatments

As further discussed in Section F1.b.i, the SHS Cancer Program has begun providing innovative robust stereotactic body radiation therapy (SBRT) and stereotactic radiosurgery (SRS) treatments to patients using the linear accelerator; however, these treatments take additional time and add disproportionately to the treatment day. To date, 65% of the SBRT treatments conducted under the SHS Cancer Program were at the Cancer Center in Fairhaven. Despite SBRT treatments taking roughly twice as long as conventional radiation treatment, SHS has experienced a steady growth in annual patient volume for SBRT as demonstrated in Figure 7, with 96 courses of SBRT delivered in 2024, more than doubling that from 2020.

SRS treatment is only available at the Cancer Center in Fairhaven. As with SBRT, there has been some growth in SRS cancer treatment over time, despite these treatments taking approximately four times as long as conventional radiation therapy. This growth is primarily driven by treatment of multi-metastatic brain cancers. See Figure 8.

¹⁰ See *infra* § F1.b.i.

SRS treatment may also be indicated for treatments for essential tremors - involuntary movements that can be debilitating for affected patients. Offering this treatment locally would be a significant benefit for those in the SHS community who would otherwise have to travel to Boston for the procedure. SHS has not yet provided these services, despite the benefit to patients, because each SRS treatment for essential tremors is estimated by SHS to take approximately eight times the treatment time of conventional radiation treatment.¹¹ A second linear accelerator at the Fairhaven Cancer Center would provide the additional linear accelerator capacity to support the provision of this service to enable local treatment for the SHS patient panel.

If the Proposed Project is approved, the Cancer Center could also expand treatment offerings for other new indications in order to keep care local for the SHS patient panel. For example, SHS offers low dose radiation therapy treatments (LDRT) for Osteoarthritis (OA). Aside from traveling to Cape Cod Hospital or up to Boston, local patients with Osteoarthritis have minimal access to these low dose radiation therapy treatments.

Additional linear accelerator capacity is necessary at the Cancer Center to accommodate the increasing demand for these innovative treatment modalities due to the additional time required for these treatments and the need to prioritize cancer patients accessing the only on-site linear accelerator. The Proposed Project would allow SHS to expand these innovative treatment options to patients residing within SHS's primary service area.

Need Based on Higher Relative Cancer Incidence and Associated Risk Factors in Bristol County

Based on available National Cancer Institute data from 2017 to 2021, the age-adjusted average incidence of cancer in Bristol County, where the second linear accelerator would be located and most SHS cancer patients reside, is higher than that of Massachusetts and nationally (453.8 cases per 100,000 residents in Bristol County, 437.2 cases per 100,000 residents in Massachusetts, and 444.4 cases per 100,000 cases nationally).¹² This reflects a 3.7% higher incidence of cancer of all types in Bristol County as compared to Massachusetts and a 2.1% higher incidence of cancer as compared nationally. In addition, based on available National Cancer Institute data from 2017 to 2021, there is a higher age-adjusted average cancer incidence rate within Bristol County compared to Massachusetts for three of the four most common cancer types seen among the SHS patient panel (i.e., lung, prostate, and colorectal cancers).¹³

For purposes of planning for sustainable access to cancer care, in addition to current utilization trends and incidence of cancer in Bristol County as discussed above, SHS also reviewed population level trends of risk factors that contribute to cancer incidence within the Bristol County community. In general, age, tobacco use, diet/exercise, and obesity are all known risk factors for cancer.¹⁴

¹¹ This estimate is based on SHS's anecdotal experience in which SRS essential tremor treatment can take up to 2 hours, as compared to conventional radiation treatment which takes only 15 minutes. This is because SRS treatments generally deliver much higher radiation doses to patients than conventional treatments; therefore, additional time is required to run enough beam to deliver the dosage and to potentially treat a greater number of fields. In particular, SRS treatment of essential tremors requires significantly higher radiation doses and number of fields, even compared to a conventional SRS treatment. In addition, the operational and safety requirements necessary to support the high dose and extra sensitivity of the treatments (e.g., setup, imaging, extra cross checks, etc.) require additional time.

¹² NCI State Cancer Profiles: Incident Rates Tables, NAT'L CANCER INST., <https://statecancerprofiles.cancer.gov/incidencrates/index.php?stateFIPS=25&areatype=county&cancer=001&race=00&sex=0&age=001&type=incd&sortVariableName=rate&sortOrder=default&output=0#results> [hereinafter "NCI State Cancer Profiles"] (generating data table: "Incidence Rate Report for Massachusetts by County, All Cancer Sites (All Stages), 2017-2021, All Races (includes Hispanic), Both Sexes, All Ages, Sorted by Rate") (last visited Feb. 9, 2026).

¹³ The incidence rate for breast cancer was lower in Bristol County than in Massachusetts. See NCI State Cancer Profiles (generating data tables for each type of cancer with the following results: **Prostate Cancer**: 125.5 cases per 100,000 residents in Bristol County, 113.3 cases per 100,000 residents in Massachusetts; **Lung & Bronchus**: 65.8 cases per 100,000 residents in Bristol County, 56.6 cases per 100,000 residents in Massachusetts; **Colorectal**: 32.5 cases per 100,000 residents in Bristol County, 31.3 cases per 100,000 residents in Massachusetts; **Breast**: 124.2 cases per 100,000 residents in Bristol County, 136.2 cases per 100,000 residents in Massachusetts).

¹⁴ See Pasquale Marino et al., *Healthy Lifestyle and Cancer Risk: Modifiable Risk Factors to Prevent Cancer*, 16 NUTRIENTS 800 (2024), <https://pmc.ncbi.nlm.nih.gov/articles/PMC10974142/pdf/nutrients-16-00800.pdf> (describing the impact of modifiable risk factors, including diet, smoking, and physical activity, on the development of breast, colorectal, and prostate cancers); Christine M. Friedenreich et al., *Physical Activity, Obesity and Sedentary Behavior in Cancer Etiology: Epidemiologic Evidence and Biologic Mechanisms*, 15 J. MOLECULAR ONCOLOGY 790 (2021),

As presented in [Figure 9](#), the UMass Donahue Institute Population Projections project significant population growth in Bristol County within the older age brackets over the course of the next 15 years.¹⁵ Between 2025 and 2040, the number of females over the age of 70 are estimated to increase significantly, with the 80-84 year old age group projected to increase by 59.3%. Males showed similar trends with the largest percentage increase (65.8%) expected in the 85+ age bracket. The incidence of cancer among the SHS patient panel is expected to increase with the aging patient population in Bristol County.¹⁶

In addition, the Robert Wood Johnson Foundation and the University of Wisconsin Public Health Institute's County Health Rankings Report ranks health factors by county, and Bristol County was identified in the bottom/unhealthiest quartile due to: higher than average tobacco use, poorer diet and exercise habits, and increased obesity rates.¹⁷ The incidence of cancer among the SHS patient panel is also expected to increase due to these cancer risk factors.

Need to Provide Timely Access to Treatment

Higher-than-average volumes of cancer patients have led to access challenges for SHS patients requiring cancer treatment using a linear accelerator. Reliance on a single linear accelerator hampers SHS's ability to provide flexible scheduling in light of patients' health needs and challenges.

The current linear accelerator located at the Cancer Center in Fairhaven is often unable to treat all patients in a single day without extended treatment hours (outside of 8am-5pm). Due to the urgent need for timely access to treatment following a cancer diagnosis, it is a priority for SHS to accommodate the volume of patients who need treatment at a given time or on a given date by extending the hours of operation of the Cancer Center in order to avoid any delay in access or compromise of treatment goals. As a result, the Cancer Center stays open and continues treatment until 6, 7, and even 8 p.m. at times. Further, radiation therapy using a linear accelerator is an individualized, multidisciplinary treatment form, requiring a treatment plan to be developed specific to the patient's needs and to the linear accelerator machine being used.¹⁸ Therefore, unless medically necessary or clinically appropriate, SHS will generally try to avoid the clinical complexity involved in transferring a patient's radiation therapy to another facility; instead, extending treatment hours to try to accommodate its patient panel as described above.¹⁹

However, even extended treatment hours may not be sufficient for patients who have comorbidities that make it difficult to attend daily treatment sessions outside standard business hours, patients juggling several appointments outside of radiation oncology, and/or patients who are ride-dependent, which are all factors that disproportionately affect the SHS

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7931121/pdf/MOL2-15-790.pdf> (describing correlations between risk factors, such as physical inactivity and obesity, and cancer development); *Age and Cancer Risk*, NAT'L CANCER INST. (last updated May 2, 2025), <https://www.cancer.gov/about-cancer/causes-prevention/risk/age> (charting the positive correlation between age and cancer risk).

¹⁵ *Massachusetts Population Estimates Program*, UMASS DONAHUE INST. (2024), <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections> (generating Population Pyramid for Bristol County and comparing the year 2025 and 2050).

¹⁶ Note that the National Cancer Institute data is age-adjusted, which may result in an overall decreasing cancer incidence trend over time, notwithstanding the higher incidence rate in Bristol County by comparison, and the aging patient population in the region which increases the risk of cancer.

¹⁷ *Bristol, MA 2025*, CNTY. HEALTH RANKINGS & ROADMAPS, <https://www.countyhealthrankings.org/health-data/massachusetts/bristol?year=2025> (last visited Feb. 9, 2026) [hereinafter "2025 County Health Rankings"]. The University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation partnered to support the 2025 County Health Rankings. See also *infra* § F1.b.iii (describing health challenges faced by Bristol County residents and further discussing the 2025 County Health Rankings).

¹⁸ See generally *infra* § F1.b.i (discussing clinical efficacy of radiation therapy as part of an individualized, multidisciplinary treatment plan).

¹⁹ SHS will transfer patient care to another facility such as an academic medical center, if medically necessary for any treatment outside the scope of the Cancer Center or at the patient's request; or if clinically feasible and appropriate, will transfer the patient to SHS's other location with a linear accelerator with similar capabilities, if there is greater capacity there. However, transfers are not optimal from a patient experience or outcomes perspective due to the potential for delays in care and risks associated with changing providers and facilities, as well as a cost perspective due to the potential for repeat tests and services.

patient population.²⁰ These factors may be addressed with the addition of a second linear accelerator to ensure timely access to cancer treatment in consideration of patients' health needs and circumstances.

As further discussed in Section F1.b.i, patients may forgo or delay necessary treatment due to such access barriers, which may negatively impact treatment adherence and outcomes.²¹ Additionally, the need to extend treatment hours places a greater burden on the Cancer Center providers and staff, as discussed in Section F1.b.i,²² which can further inhibit access to care if there is insufficient available staff or can increase costs of care if costly agency staffing is needed to fill coverage gaps to support timely provision of care.

Need to Preserve Geographically Accessible Radiation Therapy

As described in Section F1.a.i, the SHS Cancer Program primarily serves the local Bristol County community. Increasing utilization of the Cancer Center's single linear accelerator has required SHS to operate the machine at or beyond recommended capacity.²³ Failure to address capacity limitations in light of increasing utilization may force patients to seek treatment elsewhere. However, traveling outside of Bristol County for extended course radiation therapy treatments may be financially burdensome or infeasible for the SHS patient panel due to travel-related expenses and other transportation barriers.

SHS patients face transportation related challenges that may affect their ability to travel or afford extended travel to obtain necessary cancer treatment. In the most recent 2025 South Coast Health Alliance Community Health Needs Assessment (CHNA), members of Southcoast's community highlighted transportation as a pressing concern due to economic hardship.²⁴ Despite recent improvements to public bus and rail transportation noted in the CHNA, many individuals in urban centers such as New Bedford and Fall River reported that a lack of reliable transportation has prevented them from attending medical appointments, meetings, work, or accessing necessary items.²⁵ Maintaining local, geographically accessible radiation therapy treatment within the SHS system will (i) reduce the financial burden associated with obtaining medically necessary radiation therapy, (ii) alleviate transportation barriers to obtaining care, and (iii) enhance local access to needed treatment in a timely manner to support the needs of the patient panel.

Need to Address Economic Disparities Affecting Access to Cancer Care

In addition to transportation related hardships addressed above, SHS patients also face significant economic challenges that may affect their ability to access cancer treatment. Although cancer is identified as a leading cause of morbidity and mortality in the most recent CHNA, healthcare is generally prioritized after basic necessities due to financial hardships.²⁶

SHS's patient panel has a lower median income and higher poverty rates than Massachusetts residents overall. As demonstrated in Table 7, the median household income of SHS's patient panel residing in the primary service area ranges across zip codes therein from approximately \$40,000 to \$115,000, with median household income in the urban areas where SHS hospitals are located in New Bedford and Fall River, respectively, being \$53,296 for New Bedford and \$57,574 for Fall River.²⁷ The 2025 CHNA reports that Massachusetts has a statewide poverty rate of 9.9%, whereas the South Coast

²⁰ See *infra* § F1.b.iii (discussing SDOH and health disparities within the SHS community).

²¹ See *infra* § F1.b.i (describing research demonstrating the link between barriers to care and poorer treatment adherence and outcomes).

²² See *infra* § F1.b.i (describing the implications of exceeding capacity standards, including for safety standards).

²³ See *infra* § F1.b.i (discussing American College of Radiology (ACR) report on standard treatment volumes).

²⁴ SOUTH COAST COMMUNITY HEALTH ALLIANCE, COMMUNITY HEALTH NEEDS ASSESSMENT 15 (2025), <https://www.southcoast.org/wp-content/uploads/2025/09/SoCHA-CHNA-2025.pdf>.

²⁵ *Id.* at 34 ("In New Bedford, 13.63% of individuals reported that a lack of reliable transportation prevented them from attending medical appointments, meetings, work, or accessing necessary goods in the past 12 months, with Fall River closely behind at 11.76%. This aligns with the fact that these cities have the lowest rates in Bristol County for vehicle ownership per capita—the number of cars, passenger trucks under 1-ton capacity, and vans owned by households per 100 residents aged 18 or older. Limited personal vehicle access, combined with uneven walkability and transit options, underscores the need for continued investment in accessible, reliable transportation to support health, employment, and quality of life in the region").

²⁶ *Id.* at 15, 65 (noting cancer as a significant chronic disease within the community and socio-economic hardships as a barrier to long-term health).

²⁷ The average of median household income for Fall River is calculated using zip code 02720 (which is the Charlton Memorial Hospital zip code) and for New Bedford is calculated using zip code 02740 (which is the St. Luke's Hospital zip code).

region covered by the CHNA has a higher rate of 12.35%, which increases to more than double the state average in the urban centers of Fall River (18.21%) and New Bedford (18.73%).²⁸ The average per capita income in Bristol County, \$44,065, is approximately 75% of that in Massachusetts as a whole.²⁹

In addition, [Table 9](#) demonstrates that SHS cancer patients rely heavily on government insurance programs, with approximately 14.5% relying on Medicaid and 60.5% on Medicare, on average between FY22-24. Patients with Medicaid have disproportionate financial challenges that affect many aspects of their health, including obtaining cancer treatment.³⁰ Further, the 2025 CHNA reports a larger share of publicly funded coverage in the South Coast Region, potentially resulting in barriers in finding providers who accept public insurance, and financial strain for providers from lower reimbursement rates, which can affect provider service availability and capacity.³¹ Lack of health insurance is also a concern in the South Coast Region, particularly for Hispanic and Latino residents to access healthcare services.³²

The Massachusetts Health Policy Commission reports that people with lower incomes have proportionally higher out-of-pocket spending, have delayed or gone without seeing a doctor when needed, have a reduced number of age and gender-appropriate cancer screenings, and have reported overall poor health as compared to people with higher incomes.³³ In addition, lower income patients more commonly avoid seeking health care due to affordability,³⁴ which may result in patients presenting themselves for care in worse health.³⁵ According to the 2025 CHNA, more individuals delay physician visits due to cost in Bristol County than statewide in Massachusetts, which may lead to worse outcomes and greater reliance on emergency care.³⁶

In conclusion, SHS seeks to provide clinical excellence and a uniquely caring experience to every patient. The SHS community faces the above-described health and socioeconomic disparities as they navigate access challenges attributable to a growing volume of cancer diagnoses and a limited capacity machine. In addition, the SHS patient population faces disproportional health and financial challenges, which can exacerbate cancer risk. A second linear accelerator at the SHS Cancer Center in Fairhaven would allow timely access to radiation therapy in an environment that supports the needs of its patient panel.

F1.a.iii Competition:

²⁸ COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 17.

²⁹ *Bristol County, MA*, CENSUS REPORTER, <https://censusreporter.org/profiles/05000US25005-bristol-county-ma/>.

³⁰ *See, e.g.*, Elizabeth M. Allen et al., *Barriers to Care and Health Care Utilization Among the Publicly Insured*, 55 MEDICAL CARE 207 (2017), https://journals.lww.com/lww-medicalcare/abstract/2017/03000/barriers_to_care_and_health_care_utilization_among.2.aspx (finding in pertinent part that although the Affordable Care Act's expansion of the Medicaid program increased coverage thereunder, "substantial barriers to accessing services inhibit health care utilization" including delayed care resulting from provider-related and access barriers, as well as foregone care due to family/work and access barriers).

³¹ COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 44.

³² *Id.* at 46 ("The South Coast Region, particularly New Bedford and Fall River, has a higher percentage of individuals without health insurance compared to Massachusetts overall. . . . Lack of health insurance can lead to delayed care, reduced preventive services, and increased reliance on emergency care, which may result in more severe health outcomes and higher healthcare costs over time. . . . Hispanic or Latino individuals consistently have the highest uninsured rates in the region, with New Bedford showing a particularly high rate of 33.48%.").

³³ MASSACHUSETTS HEALTH POLICY COMMISSION, 2024 ANNUAL HEALTH CARE COST TRENDS REPORT AND POLICY RECOMMENDATIONS 38 (Oct. 2024), https://masshpc.gov/sites/default/files/2024_Cost_Trends_Report.pdf [hereinafter, "2024 HPC Cost Trends Report"].

³⁴ *Id.* at 38 (finding that 15.5% of low-income Massachusetts adults reported needing to see a doctor but could not because of cost in the past year, compared to only 3.5% of high-income Massachusetts adults). *See also* MASSACHUSETTS HEALTH POLICY COMMISSION, 2025 ANNUAL HEALTH CARE COST TRENDS REPORT AND POLICY RECOMMENDATIONS 15-16 (Dec. 2025), https://masshpc.gov/sites/default/files/2025%20CTR_1.pdf (finding that "increases in health care spending have significantly outstripped growth in income over the last several years. . . . [A]s more of a family's income is devoted to health care spending (whether due to higher health insurance premiums and out of pocket spending and/or lower income), the members are more likely to avoid using health care due to cost").

³⁵ *See* Grace Sparks et al., *Americans' Challenges with Health Care Costs*, KAISER FAM. FOUND. (last updated Jan. 29, 2026), <https://www.kff.org/health-costs/americans-challenges-with-health-care-costs/> ("Skipping care due to costs can have notable health impacts," including self-reported worse health).

³⁶ COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 45.

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: avoiding capital expenditures for a secondary linear accelerator to support patient need, incurring minimal operating expenses that will not impact overall costs to patients, and preserving cost-effective locally accessible radiation therapy treatment to patients in support of timely treatment and optimal patient outcomes.

First, under the Proposed Project, SHS will recommission an existing linear accelerator machine (2011 Varian Novalis TX) without the need for additional capital expenditures. SHS has historically furnished services at its Cancer Center in Fairhaven with a single linear accelerator treatment machine. As such, SHS prioritized minimal downtime delays and took advantage of the latest therapeutic innovations to maximize quality using the existing technology. The linear accelerator that was initially installed in 2011 was recently replaced with a new model (Varian TrueBeam Edge) and has remained on site in a decommissioned state. This 2011 machine, while older, is still capable of treating patients with advanced techniques such as intensity modulated radiation therapy (IMRT), and Volumetric Modulated Arc Therapy (VMAT). This machine was replaced as it was suboptimal to be relied upon as a solo treatment unit without any back-up service as periodic downtime grew over time.³⁷ Although some treatments may be optimized with the technology available using the newer machine, for many patients, treatment on either machine would be equivalent. As a result of the foregoing, SHS seeks to restore treatment capability to the 2011 machine to expand patient access to radiation therapy in response to SHS patient panel need without any additional capital or construction costs.

Second, any additional incremental operating expenses are a fraction of the cost associated with purchasing and operating a new linear accelerator machine. If reactivated, the cost of operating a second linear accelerator at the Cancer Center in Fairhaven is limited to fixed-cost vendor engineering support for the linear accelerator, and incremental staffing increases for radiation therapists and physicists to the extent patient volume increases. These expenses are estimated to be between \$224,000, and \$490,000 annually, depending on new patient volume increases.³⁸ Further, these operational costs will not impact overall costs to patients, as there are no changes to billed charges to payors or reimbursement for these services. Purchases of new linear accelerators cost several million dollars and new treatment vaults cost well over half a million dollars; therefore, the relative operating expenditure to support reactivation of the existing linear accelerator is less than 15% of that required for a new acquisition. Further, these operating expenses would be incurred to operate any linear accelerator in response to SHS patient panel need. Therefore, operating a *reactivated* linear accelerator is a cost-effective option to expand access in response to SHS patient panel need.

Third, as discussed in Section F1.a.ii and Section F1.b.i, preserving local access to radiation therapy helps address health and socio-economic challenges affecting the SHS patient panel, including by accommodating more flexible patient scheduling to promote timely care and ensuring geographically accessible care for patients undergoing extended courses of radiation therapy requiring repeated travel to the Cancer Center. The Proposed Project will also support competition with potentially more costly alternatives in Boston to keep patients closer to home. Traveling further for radiation therapy may be financially burdensome or infeasible for many SHS patients given the socio-economic challenges. Furthermore, when access issues persist or patients experience financial barriers, patients may delay or forgo treatment and present themselves for care with more advanced disease states.³⁹ As cancer outcomes are tied directly to timely treatment,⁴⁰

³⁷ The 12-month average uptime of the decommissioned Novalis TX from Jan. 2023 to Jan. 2024 was 96.81% and from Jan. 2024 to Jan. 2025 was 97.56%.

³⁸ SHS total operating expenses may increase up to \$490,000 annually to cover additional radiation therapist and medical physics support needed to treat up to 270 new patients annually.

³⁹ See Sparks et al., *supra* note 35.

⁴⁰ See *infra* § F1.b.i (describing the link between delayed, inaccessible, or disjointed care and poorer health outcomes).

timely access and patient adherence to medically necessary radiation treatment will help avoid downstream costs of delayed care.⁴¹ Accordingly, the Proposed Project will compete in terms of cost-savings to patients for timely, local care.

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.

Implications of Exceeding Capacity Standards

As discussed in Section F1.a.ii, with increasing utilization over time, the existing linear accelerator regularly operates beyond standard business hours (8am-5pm) to accommodate patient panel need. In addition, SHS currently operates beyond standard capacity as compared to similar hospitals and accredited facilities. The American College of Radiology (ACR) has provided independent evaluations of Radiation Oncology departments since the inception of their accreditation program in 1986.⁴² SHS's Cancer Program has been evaluated under this accreditation program every three years and has earned continuous accreditation since 2015. As part of its most recent accreditation evaluation in February of 2025, the ACR report notes that hospitals of similar size to SHS hospital facilities have an average of 238 new patients per linear accelerator, and among all ACR accredited facilities, there is an average of 248 new patients per linear accelerator. Whereas, between 2016 and 2024, the Cancer Center had an average annual volume of 360 new patients for its one linear accelerator - approximately 50% higher than similar hospitals and 45% higher than other accredited facilities, as reported by the ACR. And, as depicted in [Figure 6](#), SHS's Cancer Center new patient volume is rapidly trending higher, with new volume in 2024 exceeding 420 new patients.

Excessive utilization of a linear accelerator machine may stress safety standards, including as a result of increased levels of provider and staff burnout.⁴³ In addition, linear accelerator machine faults and downtime may increase with excessive patient treatment volume.⁴⁴ Additional linear accelerator service capacity is necessary for SHS to continue to provide radiation therapy in accordance with SHS's high standard for safety and quality, and maintain operational capacity.

Clinical Efficacy of Radiation Treatments Utilizing Linear Accelerator

SHS utilizes the existing linear accelerator to provide a wide variety of radiation treatments at the Cancer Center including: Intensity Modulated Radiation Therapy (IMRT), Volumetric Modulated Arc Therapy (VMAT), and Image Guided Radiation Therapy (IGRT), which are utilized for over half of all treatments. In addition, the Cancer Center also provides innovative robust stereotactic body radiation therapy (SBRT) and stereotactic radiosurgery (SRS) treatments, each requiring extended treatment times for each patient.

⁴¹ November McGarvey et al., *Increased Healthcare Costs by Later Stage Cancer Diagnosis*, 22 BMC HEALTH SVCS. RSCH. 1155 (2022), https://pmc.ncbi.nlm.nih.gov/articles/PMC9469540/pdf/12913_2022_Article_8457.pdf (finding that for all types of cancer measured—i.e., breast, cervical, colorectal, lung, ovarian, and prostate cancers—mean annual and cumulative costs increased by stage of diagnosis).

⁴² Katie Albus, *The Accreditation Process: Radiation Oncology (Revised 6-2-2021)*, AM. COLL. RADIOLOGY (last updated May 16, 2025), <https://accreditationsupport.acr.org/support/solutions/articles/11000062793-the-accreditation-process-radiation-oncology-revised-6-2-2021->; Nancy Ann Ellerbroek et al., *Practice Accreditation for Radiation Oncology: Quality is Reality*, 3 J. AM. COLL. RADIOLOGY 787 (2006), [https://www.jacr.org/article/S1546-1440\(06\)00141-4/abstract](https://www.jacr.org/article/S1546-1440(06)00141-4/abstract) (“The Radiation Oncology Practice Accreditation Program of the ACR is a voluntary program that was established in 1986”).

⁴³ See Duane Akroyd et al., *Burnout in Radiation Therapists: The Predictive Value of Selected Stressors*, 52 INT'L J. RADIATION ONCOLOGY, BIOLOGY, PHYSICS 816 (2002), [https://www.redjournal.org/article/S0360-3016\(01\)02688-8/abstract](https://www.redjournal.org/article/S0360-3016(01)02688-8/abstract) (“Radiation therapists have high levels of the first two stages of burnout: emotional exhaustion and depersonalization”).

⁴⁴ Jeremy D. Hosiak et al., *Operational Insights from the Longitudinal Analysis of a Linear Accelerator Machine Log*, 13 CUREUS e16038 (2021), <https://pmc.ncbi.nlm.nih.gov/articles/PMC8245652/pdf/cureus-0013-00000016038.pdf>.

1. Clinical Efficacy and Indications of Standard Radiation Therapy

According to the American Cancer Society, more than half of all cancer patients receive some form of radiation therapy during their treatment.⁴⁵ Standard radiation therapy is delivered locally via a linear accelerator to a specific part of a patient's body.⁴⁶ The linear accelerator delivers a precise dose of radiation, which targets cancerous tissue while sparing as much of the nearby healthy tissue as possible.⁴⁷ Radiation therapy is often included as part of an individualized, multidisciplinary treatment plan.⁴⁸ Standard radiation therapy is used to treat a wide range of cancers, including prostate, breast, and lung cancers, as well as cancers of the rectum and anal canal.⁴⁹ As noted in Section F1.a.i and [Figure 5](#), the most prevalent type of cancers treated by the SHS Cancer Program between 2022 and 2024 is breast cancer, followed by lung, prostate, and colorectal cancer.

Radiation therapy can also be used in a wide range of stages in the cancer treatment process, including cancers that are early stage, locally advanced, or metastatic.⁵⁰ For early-stage treatment, radiation therapy offers a noninvasive alternative to surgery, in many cases providing "similar disease and survival outcomes as compared with surgery while preserving function . . . or where surgery has been ruled out due to a patient's comorbidities or refusal."⁵¹ In patients with locally advanced or metastatic cancers, radiation therapy plays an important role in combination with surgery and systemic therapies.⁵²

2. Clinical Efficacy and Indications of SBRT and SRS

SBRT involves radiotherapy treatments in which relatively high doses of radiation are delivered to highly precise areas, resulting in treatment that is generally more effective and localized than conventional radiation therapy to optimize protection of healthy organs and tissues.⁵³ SBRT treatment is used for several disease sites including bone metastasis, lung, prostate, and liver cancers, as it "represents a non-invasive, highly effective ablative treatment."⁵⁴ One study assessing SBRT's efficacy in treating localized prostate cancer found a 95.8% disease-free rate at 5 year follow-up, compared to 94.6% for conventional radiation therapy.⁵⁵ In addition, SBRT is a particularly safe and effective treatment option in cases where tumors are medically inoperable, as can be the case with non-small cell lung cancer⁵⁶ and other cancer types.

To date, 65% of the SBRT treatments conducted under the SHS Cancer Program were at the Cancer Center in Fairhaven. SHS has experienced a steady growth in annual patient volume for SBRT as demonstrated in [Figure 7](#), with 96 courses of SBRT

⁴⁵Radiation Therapy, AM. CANCER SOC'Y (last updated June 9, 2025), <https://www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html>. We note that, on average, between 2022 and 2024, nearly 47% of all SHS cancer patients received LINAC treatment.

⁴⁶Radiation Therapy to Treat Cancer, NAT'L CANCER INST. (last updated May 15, 2025), <https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy>.

⁴⁷External Beam Radiation Therapy for Cancer, NAT'L CANCER INST. (last updated May 15, 2025), <https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy/external-beam>.

⁴⁸ Vincenzo Valentini et al., *Role of Radiation Oncology in Modern Multidisciplinary Cancer Treatment*, 14 MOLECULAR ONCOLOGY 1431 (2020), <https://pmc.ncbi.nlm.nih.gov/articles/PMC7332217/#mol212712> (providing a broad overview of how radiation therapy can be part of a patient-centered approach "by providing a noninvasive, effective, safe, and expeditious cure").

⁴⁹ See *id.* (listing "cancers commonly treated with radiotherapy").

⁵⁰ See generally *id.* (describing the uses of radiation oncology for managing early-stage, locally advanced, and metastatic cancers).

⁵¹ *Id.* at 1435.

⁵² *Id.* at 1437-38.

⁵³ Robert D. Timmerman et al., *Emergence of Stereotactic Body Radiation Therapy and Its Impact on Current and Future Clinical Practice*, 32 J. CLINICAL ONCOLOGY 2847 (2014), <https://pmc.ncbi.nlm.nih.gov/articles/PMC4152712/>; Gregory M.M. Videtic et al., *Stereotactic Body Radiation Therapy for Early-Stage Non-Small Cell Lung Cancer: Executive Summary of an ASTRO Evidence-Based Guideline*, 7 PRAC. RADIATION ONCOLOGY 295 (2017), [https://www.practicalradonc.org/article/S1879-8500\(17\)30121-2/fulltext](https://www.practicalradonc.org/article/S1879-8500(17)30121-2/fulltext); Rémy Kinj & Jean Bourhis, *How Stereotactic Radiotherapy Changed the Landscape in Cancer Care*, 15 CANCERS 1734 (2023), <https://pmc.ncbi.nlm.nih.gov/articles/PMC10046296/>; Lijun Ma et al., *Emerging Technologies in Stereotactic Body Radiotherapy*, 6 CHINESE CLINICAL ONCOLOGY S12 (2017), <https://cco.amegroups.org/article/view/16002/16542>.

⁵⁴ Kinj & Bourhis, *supra* note 53, at 1734.

⁵⁵ Nicholas van As et al., *A Phase III Randomized Controlled Trial of Stereotactic Body Radiotherapy in Localized Prostate Cancer*, 391 NEW ENGLAND J. MED. 1413 (2024), <https://pmc.ncbi.nlm.nih.gov/articles/PMC7616714/pdf/EMS197589.pdf>.

⁵⁶ See, e.g., Videtic, *supra* note 53 ("SBRT has an important role to play in treating early-stage [non-small cell lung cancer], particularly for medically inoperable patients with limited other treatment options."); Paul Kreinbrink et al., *Lung Stereotactic Body Radiation Therapy (SBRT) for Early-Stage Non-Small Cell Lung Cancer in the Very Elderly (≥80 Years Old): Extremely Safe and Effective*, 8 J. GERIATRIC ONCOLOGY 351 (2017), [https://www.geriatriconcology.net/article/S1879-4068\(17\)30129-7/abstract](https://www.geriatriconcology.net/article/S1879-4068(17)30129-7/abstract) ("SBRT for early-stage NSCLC is the accepted standard of care in medically inoperable patients. . . . In this study of our very elderly (≥80 years old) early-stage NSCLC patients, we highlight both the extremely high efficacy and tolerability (zero grade 2 or above toxicities) associated with definitive intent SBRT").

delivered in 2024, doubling that from 2020. However, these treatments take roughly twice as long as conventional radiation treatment, and add disproportionately to the treatment day.

SRS treatment is only available at the Cancer Center in Fairhaven. As with SBRT, there has been some growth in SRS treatment over time. See [Figure 8](#). This growth was primarily driven by treatment of multi-metastatic brain cancers, which has a significant quality of life benefit as compared to the alternative, whole brain radiotherapy.⁵⁷ SRS treatment of multi-metastatic brain cancers takes approximately four times as long as conventional radiation therapy, and effectively limits the treatment day.

SRS treatment may also be indicated for treatments for essential tremors - involuntary movements that can be significantly debilitating for affected patients. Offering this treatment locally would be a significant benefit for those in the SHS community who would otherwise have to travel to Boston for the procedure. Although the Cancer Center is prepared to provide these treatments, treatments have been delayed because each procedure takes almost two hours – which constitutes approximately eight times the treatment time of conventional radiation treatment (15 minutes).⁵⁸ SHS is currently working to find periodic opportunities to add this to the existing linear accelerator schedule, but has not yet been successful due to the growing demand for standard radiation therapy. A second linear accelerator at the Fairhaven site would support the provision of this service to enable local treatment for the SHS patient panel.

Due to the additional time required for these treatments, in order to accommodate the increasing demand for these innovative treatment modalities while continuing to prioritize conventional cancer radiation therapy, additional linear accelerator capacity is required. The Proposed Project would allow SHS to expand these innovative treatment options to its patients.

3. Clinical Efficacy and Indications of Low Dose Radiation Therapy (LDRT) for Osteoarthritis

Osteoarthritis is prevalent in our society causing pain and joint stiffness, and reduced mobility for patients.⁵⁹ LDRT for Osteoarthritis has been shown to offer symptom relief and is becoming a more common treatment option for patients who have not found adequate relief from primary/standard treatments.⁶⁰ The most common form of arthritis in the United States is Osteoarthritis, affecting over 32 million Americans.⁶¹ Within this population, it is estimated that 25% of patients do not respond to standard therapies and these are optimal candidates for LDRT.⁶²

LDRT has been utilized for over one hundred years, and became less prominent as a standard therapy when pharmaceuticals advanced and became the primary means of treatment.⁶³ In recent years, the success found with these primary pharmaceutical therapies has stagnated.⁶⁴ LDRT has once again resurfaced as having strong potential for symptom management within populations for whom the primary therapies do not work.⁶⁵ Although the SHS Cancer Program has begun offering these treatments, patient access is severely limited by availability of SHS's single linear accelerator at the Cancer Center, which

⁵⁷ See, e.g., Paul D. Brown et al., *Postoperative Stereotactic Radiosurgery Compared with Whole Brain Radiotherapy for Resected Metastatic Brain Disease (NCCTG N107C/CEC-3): A Multicentre, Randomised, Controlled, Phase 3 Trial*, 18 LANCET ONCOLOGY 1049 (2017), <https://pmc.ncbi.nlm.nih.gov/articles/PMC5568757/> (“Cognitive-deterioration-free survival was longer in patients assigned to SRS . . . than in patients assigned to WBRT . . . and cognitive deterioration at 6 months was less frequent in patients who received SRS than those who received WBRT”).

⁵⁸ See *supra* note 11 (discussing timing for various radiation therapies, including SRS for essential tremors).

⁵⁹ *Osteoarthritis*, CTRS. FOR DISEASE CONTROL & PREVENTION (last updated Jan. 26, 2024), <https://www.cdc.gov/arthritis/osteoarthritis/index.html>.

⁶⁰ Armin Hoveidaei et al., *Low-Dose Radiation Therapy (LDRT) in Managing Osteoarthritis: A Comprehensive Review*, 102 CURRENT THERAPEUTIC RSCH. 100777 (2025), <https://pmc.ncbi.nlm.nih.gov/articles/PMC11964493/pdf/main.pdf> (“LDRT emerges as a promising alternative treatment for managing OA, offering significant pain relief and functional improvement with minimal adverse effects. . . . [I]t could serve as a valuable treatment option, particularly for patients who do not respond to conventional therapies”).

⁶¹ OSTEOARTHRITIS ACTION ALLIANCE, *OA PREVALENCE AND BURDEN: OSTEOARTHRITIS PREVENTION AND MANAGEMENT IN PRIMARY CARE* (2025), <https://oaaction.unc.edu/wp-content/uploads/sites/623/2019/08/OA-Prevalence-and-Burden-updated-3.14.2025.pdf>.

⁶² Austin P.H. Dove et al., *The Use of Low-Dose Radiation Therapy in Osteoarthritis: A Review*, 114 INT’L J. RADIATION ONCOLOGY, BIOLOGY, PHYSICS 203, 205 (2022), <https://www.redjournal.org/action/showPdf?pii=S0360-3016%2822%2900357-1> (“[A]bout 25% of all patients [with osteoarthritis] will not respond to these therapies or lose their responsiveness over time”).

⁶³ *Id.* at 207 (“Historically, OA was commonly treated with LDRT in the US until the 1980s, when improved pharmacologic treatment options became available and studies questioned the benefit of treatment versus placebo, leading to decreased practice”).

⁶⁴ Hoveidaei et al., *supra* note 60 at 10077 (“The most common treatments for OA are pharmacological approaches, physical therapy, and, in severe cases, surgery. However, these treatments fail to provide long-term relief, particularly for patients with severe or refractory symptoms”).

⁶⁵ Dove et al., *supra* note 62.

rightfully must prioritize services for cancer patients. The Proposed Project would help provide the needed access to LDRT for Osteoarthritis.

Effect of Timely Access and Geographic Proximity on Health Outcomes

1. Internal Review of Treatment Times

As discussed in Section F1.a.ii, in terms of access hours, some patients benefit from nonstandard business hours offering early and late treatments (e.g., working patients). However, there are also many patients for whom treatments outside of standard hours are not accessible or feasible. Patients with comorbidities and ride issues often have challenges getting to and from the Cancer Center either early in the morning or late at night, and many patients have competing familial and professional obligations during such hours.

Due to the increasing volume over time, SHS conducted an internal Cancer Center study of treatment time slots in 2024 to assess the frequency that patients had to accept treatment times during nonstandard business hours (either before 8:00 am or after 5:00 pm). At the Cancer Center, there were 60 days (23% of all business days in calendar year 2024) that required this type of scheduling. Lack of access to care during standard business hours leaves some patients challenged to get to and from their treatments. Ride access, appointment conflicts, energy, means, and comfort level are all hindrances for some patients who face limited treatment options during nonstandard hours. Reliance on appointments outside of standard business hours also places added burdens on providers and staff to meet patient demand during off-hours, and on SHS to fill gaps in coverage to ensure appropriate staffing without overburdening available staff.

2. Evidence with Respect to Outcomes, Quality of Life, and Financial Burden

Receiving cancer care far from the patient's residence often leads to delayed or incomplete care for the patient,⁶⁶ which is associated with poorer outcomes, including lower rates of survival,⁶⁷ higher mortality,⁶⁸ increased risk of cancer recurrence,⁶⁹ and greater risk of persistent disease.⁷⁰ These effects are present in every cancer type most common among the SHS patient panel.⁷¹

Importantly, in a study of breast cancer patients grouped based on travel distance to their nearest treatment facility, geographically distant patients whose treatment plan involved radiation therapy were less likely to receive that therapy than

⁶⁶ See, e.g., Sierra M. Silverwood et al., *The Relationship Between Travel Distance for Treatment and Outcomes in Patients Undergoing Radiation Therapy: A Systematic Review*, 9 ADVANCES IN RADIATION ONCOLOGY 101652 (2024), <https://pmc.ncbi.nlm.nih.gov/articles/PMC11570298/pdf/main.pdf> (finding that "distance acts as a significant obstacle to accessing guideline-concordant radiation therapy care in a timely manner, consequently influencing survival rates and other aspects related to the treatment of patients undergoing radiation therapy").

⁶⁷ See, e.g., Carlos A. Perez et al., *Carcinoma of the Uterine Cervix. I. Impact of Prolongation of Overall Treatment Time and Timing of Brachytherapy on Outcome of Radiation Therapy*, 32 INT'L J. RADIATION ONCOLOGY, BIOLOGY, PHYSICS 1275 (1995), [https://www.redjournal.org/article/0360-3016\(95\)00220-S/abstract](https://www.redjournal.org/article/0360-3016(95)00220-S/abstract) (finding that prolongation of treatment time in patients with certain uterine cancers impacts 10-year cause-specific survival).

⁶⁸ See, e.g., Timothy P. Hanna et al., *Mortality Due to Cancer Treatment Delay: Systematic Review and Meta-Analysis*, 371 BMJ m4087 (2020), <https://www.bmj.com/content/371/bmj.m4087> (finding through a meta-analysis of 34 studies that "a treatment delay of four weeks is associated with an increase in the risk of death" of up to 13%).

⁶⁹ See, e.g., Nitin Ohri et al., *Radiation Therapy Noncompliance and Clinical Outcomes in an Urban Academic Medical Center*, 95 INT'L J. RADIATION ONCOLOGY, BIOLOGY, PHYSICS 563 (2016), [https://www.redjournal.org/article/S0360-3016\(16\)00064-X/abstract](https://www.redjournal.org/article/S0360-3016(16)00064-X/abstract) ("In univariate analyses, RT noncompliance was associated with increased recurrence risk (5-year cumulative incidence 16% vs 7%, P<.001), inferior recurrence-free survival (5-year actuarial rate 63% vs 79%, P<.001), and inferior overall survival (5-year actuarial rate 72% vs 83%, P<.001)").

⁷⁰ See, e.g., Urjeet A. Patel et al., *Poor Radiotherapy Compliance Predicts Persistent Regional Disease in Advanced Head/Neck Cancer*, 119 LARYNGOSCOPE 528 (2009), <https://onlinelibrary.wiley.com/doi/10.1002/lary.20072> (finding that of 40 patients with head/neck cancer, "[o]nly 23% of compliant patients had positive pathology while 79% of noncompliant patients had positive pathology").

⁷¹ See Nuran Senel Bese et al., *The Effect of Treatment Interruptions in the Postoperative Irradiation of Breast Cancer*, 69 ONCOLOGY 214 (2005), <https://karger.com/ocl/article-abstract/69/3/214/237775/The-Effect-of-Treatment-Interruptions-in-the> (radiation treatment interruptions of more than one week adversely impact breast cancer outcomes); Kelly D. Blake et al., *Making the Case for Investment in Rural Cancer Control: An Analysis of Rural Cancer Incidence, Mortality, and Funding Trends*, 26 CANCER, EPIDEMIOLOGY, BIOMARKERS & PREVENTION 992 (2017), <https://aacrjournals.org/cebpa/article/26/7/992/71338/Making-the-Case-for-Investment-in-Rural-Cancer> (finding that rural lung and colorectal cancer patients, among other cancer types, had higher rates of treatment nonadherence and mortality, in part due to geographic distance to

their peers who live nearby to treatment, leading to worse survival outcomes.⁷² Furthermore, travel required for far-away care may limit treatment choice, irrespective of what might be most clinically appropriate for a given patient. For example, in this study, women diagnosed with breast cancer who lived more than 50 miles away from a treatment facility were more likely to undergo a mastectomy, which requires travel only for surgery, versus opting for treatment that includes radiation therapy, which requires weeks of daily travel.⁷³ This study underscores the importance of maintaining geographically proximate radiation therapy.

In addition to health outcomes, patients who receive care within their community are relieved of the burdens associated with travel. Travel adds financial and psychological burdens for patients and their caregivers⁷⁴ and often contributes to delayed diagnoses.⁷⁵ The Massachusetts Health Policy Commission raised concerns in its April 2025 report that extensive travel for cancer care “has been shown to be associated with ‘more advanced disease at diagnosis, inappropriate treatment, a worse prognosis, and a worse quality of life’” and that “increased travel burden might impose financial hardships on patients who are likely already struggling with the expense of care.”⁷⁶ In its report, the Health Policy Commission emphasized the need to mitigate concentration of cancer care in downtown Boston by preserving high-quality and accessible community-based resources for cancer treatment.⁷⁷ If approved, the Proposed Project would preserve and expand access to high-quality and accessible community-based radiation therapy treatment consistent with the aims of the Health Policy Commission.

F1.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.

The Proposed Project will yield positive outcomes for the SHS patient panel with access to new treatment options, strong positive patient satisfaction, and support to accommodate the growing number of patients seeking treatment.

1. **New Treatment Access:** Access to specialty treatment options such as multi-metastatic SRS, functional SRS for benign conditions, and to LDRT for Osteoarthritis. Patients in the SHS community currently have minimal access to these benign disease treatment options outside of Cape Cod or Boston.

- a. Measure

The volume of patients being treated at the Cancer Center with cranial SRS for cancerous brain lesions, for essential tremors, and for Osteoarthritis will be recorded and trended over time.

treatment); Shaakir Hasan et al., *Optimal Timing of Radiotherapy in High Risk Prostate Cancer: Do Missed Days Matter?*, 26 CLINICAL TRANSLATIONAL RADIATION ONCOLOGY 47 (2021), <https://www.ctro.science/action/showPdf?pii=S2405-6308%2820%2930093-8> (demonstrating poorer overall survival associated with treatment delays for patients with more aggressive prostate cancers); Zoltan Ungvari et al., *Treatment Delay Significantly Increases Mortality in Colorectal Cancer: A Meta-Analysis*, 47 GEROSCIENCE 5337 (2025), <https://doi.org/10.1007/s11357-025-01648-z> (finding a progressively increasing risk of 12-39% of mortality in patients with colorectal cancer with longer treatment delays).

⁷² Colleen F. Longacre et al., *Travel, Treatment Choice, and Survival Among Breast Cancer Patients: A Population-Based Analysis*, 2.1 WOMEN'S HEALTH REPORTS 1 (2021), <https://pmc.ncbi.nlm.nih.gov/articles/PMC7957915/pdf/whr.2020.0094.pdf>.

⁷³ *Id.*

⁷⁴ See Cecilia Vindrola-Padros et al., *On the Road and Away from Home: A Systematic Review of the Travel Experiences of Cancer Patients and Their Families*, 26 SUPPORTIVE CARE IN CANCER 2973 (2018), <https://dx.doi.org/10.1007/s00520-018-4266-2> (“Patients and carers consistently reported lack of support when traveling, relocating, and returning home”).

⁷⁵ See Massimo Ambroggi et al., *Distance as a Barrier to Cancer Diagnosis and Treatment: Review of the Literature*, 20 ONCOLOGIST 1378 (2015), <https://doi.org/10.1634/theoncologist.2015-0110> (finding that across 10 studies, “the travel burden conditioned the stage at diagnosis. Patients who traveled 50 miles or 1 hour or more in driving time were associated with a more advanced disease at diagnosis”).

⁷⁶ MASSACHUSETTS HEALTH POLICY COMMISSION, FINAL REPORT: COST AND MARKET IMPACT REVIEW OF DANA-FARBER CANCER INSTITUTE, BETH ISRAEL DEACONESS MEDICAL CENTER, AND HARVARD MEDICAL FACULTY PHYSICIANS (HPC-CMIR-2024-1) (Apr. 17, 2025), https://masshpc.gov/sites/default/files/20250417_BILH-DFCI_CMIR-final.pdf (quoting Ambroggi et al., *supra* note 75).

⁷⁷ *Id.* at 11 (“While concentration of care at urban specialty hospitals may create economies of scale and promote beneficial specialization, it also may challenge access to care, particularly for patients for whom travel presents a greater burden”).

- b. Projections

With growth expectations in line with history, it is expected that at least fifteen patients and likely close to thirty patients will be treated for cancerous brain metastases with SRS. The first patient is expected to be treated with functional SRS in 2026. If the Proposed Project is approved, we expect to treat approximately one patient per month or 12 patients annually at the Cancer Center.
 - c. Monitoring

Records of the clinical care and management of these patients is kept in the Epic medical record as well as in the Radiation Oncology Information System, Aria. Volume data is also recorded and processed with additional manual data logs managed by the radiation oncology team. Data would be readily available for trending and for data submissions.
2. **Patient Satisfaction:** Strong and positive patient satisfaction has always been a key priority of SHS and its Cancer Program. SHS has had historic success in this area, though with the volume growth experienced, challenges have increased in minimizing wait times and with accommodating requests for time slots that align with chemotherapy treatments, transportation needs, and other individual needs.
- a. Measure

SHS utilizes the NRC Health platform to acquire and monitor patient feedback upon completion of treatment. When patients finish their radiation therapy, a survey is issued. The primary prompt utilized to assess overall experience is whether a patient would recommend our facility to others. This and other response data, both quantitative and in the form of free text or verbal feedback, is tracked and trended by SHS staff.
 - b. Projections

Quantitative data is compared to a benchmark set from comparable aggregate data. Patient satisfaction is expected to be positive due in part to reduced wait times and scheduling flexibility associated with the approved Proposed Project.
 - c. Monitoring

SHS will monitor patient satisfaction data obtained from NRC Health, including any trends for further analysis.
3. **Capacity Limitations:** As was shown with new patient volume data as well as some specialty treatment data, patients requiring radiation therapy for the treatment of cancer has been growing. Population health data also shows that both elderly populations and cancer patient populations are both on the rise. Patient volume data will be evaluated to assess capacity limitations.
- a. Measure

New patient and treatment volumes are documented both in the Epic medical record and in the Aria Radiation Oncology Information System. Data is acquired in many forms, from counts of billing codes to counts of new patient visits and other more treatment-specific metrics.
 - b. Projections

The data presented in this Application was pulled from new patient visit treatment codes as processed through Epic. There were over 420 new patient visits in the Cancer Center clinic in 2024. If the Proposed Project is approved, this number is expected to approach 450 initially with additional growth over time based on expected growth in cancer among the patient panel and as previously limited treatment options can be scheduled.
 - c. Monitoring

Continued monitoring will be done through the same means that are utilized now, mainly through Epic and Aria. The new patient visit billing code counts are extracted from Epic and are trended monthly through an additional data log.

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 need-base, 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.

If approved, the Proposed Project would directly and positively address health inequities that impact the SHS patient panel.

Background on Regional Health Disparities and SDOH

The SHS service area includes a diverse population that spans across multiple cities and towns in the South Coast region of Massachusetts (as well as communities in Rhode Island). The most recent 2025 Community Health Needs Assessment identifies socioeconomic conditions as critical drivers of community health, and highlights “high housing costs, increasing cost of food, and limited access to affordable childcare and transportation as pressing concerns.”⁷⁸ The CHNA suggests opportunities for improvement with respect to addressing social drivers of health by connecting “chronic disease prevention initiatives to housing stability, food security, transportation access and workforce development” and expanding access to culturally competent care for chronic disease management.⁷⁹ The 2025 CHNA also reports that population health outcomes are affected by economic challenges, higher rates of chronic disease, including cancer, and disparities in access to healthcare services in the South Coast region, and that equitable access to cancer treatment is important for reducing cancer within the community.⁸⁰

As previously noted, fourteen of the top fifteen zip codes where SHS patients reside are in Bristol County. However, on average, the residents of Bristol County face more challenges to their health and well-being than those from other counties. The US News and World Report ranked approximately 3,000 counties on factors that contribute to overall health and well-being.⁸¹ Bristol County received an overall score of 56/100 – significantly lower than the Massachusetts state average of 65 during the same time period.⁸² In general, the rankings identified equity, housing, public safety, and community vitality as challenges for Bristol County.

In addition, according to the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation County Health Rankings & Roadmaps research (2025 County Health Rankings), the Bristol County population fares worse than average in terms of health compared to other counties in Massachusetts.⁸³ The 2025 County Health Rankings estimate the volume of premature deaths in terms of the years of life lost before age 75 per 100,000 people between 2010 and 2023 in Bristol County to be 7,600 years of life as compared to 5,700 for Massachusetts as a whole.⁸⁴ Importantly, this research identified malignant neoplasms as the leading cause of premature deaths under age 75 per 100,000 people in Bristol County.⁸⁵ The 2025 County Health Rankings also estimate quality of life in Bristol County in terms of the number of reported poor physical health days (within the past 30 days) as 4.2 in Bristol County and as compared to 3.6 in Massachusetts and 3.9 across the United States.⁸⁶ Additional factors identified in the 2025 County Health Rankings contributing to the health challenges in Bristol County include: reduced access to exercise opportunities and reduced

⁷⁸COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 15 (“Economic hardship often forces residents to prioritize immediate survival over long-term well-being, making it difficult to afford essentials such as food, healthcare, and housing. Rising costs of living, combined with limited support systems, further restrict access to critical services—particularly for low-income families, seniors, and marginalized populations”) See also *supra* § F1.a.ii (discussing economic challenges).

⁷⁹ COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 68 (discussing opportunities for improvement of chronic diseases including cancer within the community).

⁸⁰ *Id.* at 65, 79 (discussing cancer as a chronic disease within the community and risk factors for population health).

⁸¹ *Overview of Bristol County, MA*, US NEWS & WORLD REPORT, <https://www.usnews.com/news/healthiest-communities/massachusetts/bristol-county> (last visited Feb. 10, 2026).

⁸² Under the US News & World Report, Bristol County had an overall population health score of 57/100 and an equity score of 53/100. *Id.*

⁸³ 2025 County Health Rankings, *supra* note 17.

⁸⁴ *Id.* (defining premature deaths as the age-adjusted years of potential life lost before age 75 per 100,000 population, measured between 2021-2023).

⁸⁵ *Id.* (as presented in data summaries under analysis of premature deaths, with data source listed as: CDC WONDER, available at <https://wonder.cdc.gov/>).

⁸⁷ *Id.*

access to healthy foods; higher than average food insecurity and drinking water violations; and higher than average unemployment and a higher percentage of children in poverty.

The SHS patient population also has a greater proportion of Hispanic residents as compared to the US population, which, according to the Health Policy Commission, have approximately double the likelihood of reporting fair or poor health as compared to their Black and White counterparts.⁸⁷ In addition, in Massachusetts, 35.2% of Hispanic patients report having challenges accessing a doctor's office or clinic as compared to 26.2% of non-Hispanic White patients.⁸⁸ The SHS patient population also has a greater numbers of immigrants and patients who speak English as a second language, compared to Massachusetts overall, making accessibility to healthcare and culturally competent programs essential.⁸⁹

These challenges provide a backdrop with which to understand the specific needs and health inequity of the SHS patient panel.

SHS Health Equity Initiatives

As demonstrated in Sections F1.a.i. and F1.a.ii., the community served by SHS suffers from greater than average financial strain, and they are more likely to lack access due to affordability. They are also more likely to report fair or poor health, risk factors associated with a higher incidence of cancer. By providing adequate, timely and local access to the highest quality cancer care and to specialty treatment offerings that are relevant to the growing needs of this population, SHS will improve the health and well-being of the community at large and thereby decrease some of the known health and socio-economic disparities.

To further address health and socio-economic disparities in the SHS patient population, including those raised in the CHNA, SHS offers several programs and support services for cancer patients, which are often individualized to the patient and intended to align with treatment appointments. These programs are outlined below in further detail.

- **Transportation.** To assist patients in getting to and from their treatments, SHS employs multiple social workers to support the Cancer Program. The social workers and the staff who assist them arrange for rides for patients that lack transportation or the means to obtain transportation at no cost to the patient, if they meet eligibility criteria. SHS staff work with local cab companies and give patients vouchers to pay for these rides in accordance with its transportation assistance policy, and staff are directly involved to support patients' safe passage to and from the Cancer Center.
- **Financial Assistance.** To assist patients with other socioeconomic burdens while undergoing cancer treatments, SHS offers financial assistance to eligible patients and their caregivers, including for transportation, parking, groceries, and other financial stressors while a patient is undergoing treatment, subject to eligibility and an individualized determination of need.
- **Food Security.** As food access is a challenge for many of SHS patients, SHS has multiple dieticians who work through the Cancer Program to assist with patients' food-related needs. In addition to support for accessing groceries, SHS dieticians oversee a food grant that supports patients with food vouchers to the SHS cafeteria, with gift cards for groceries, and with packages of frozen foods such as soups or other healthy food items. A freezer located at the Cancer Center in Fairhaven is stocked with nutritional support that can be put directly into the hands of patients who need it before they leave their appointments.
- **Cultural Competence.** SHS maintains culturally competent support within the Cancer Center. SHS employs staff members who speak languages that are primary in the community, including English, Portuguese and Spanish. SHS ensures that interpreters are always available, and that all forms and important communications are readily available in the patients' native language. Cultural competence is taught to all staff members through required

⁸⁷ 2024 HPC Cost Trends Report, *supra* note 33, at 38 (finding that 20.6% of Hispanic adults ages 18-64 reported fair or poor health, compared to 10.9% of Black adults and 9.6% of white adults).

⁸⁸ CENTER FOR HEALTH INFORMATION AND ANALYSIS (CHIA), HEALTH INSURANCE COVERAGE AND CARE IN MASSACHUSETTS, 2015-2019: A BASELINE ASSESSMENT OF GAPS BY RACE AND ETHNICITY 18 (Dec. 2021), <https://www.chiamass.gov/assets/docs/r/pubs/2021/health-equity-report.pdf>.

⁸⁹ Schoenberg, *supra* note 4; COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24, at 13-14.

annual training, and a significant portion of SHS staff is from the local community. SHS elicits ongoing feedback from SHS patients and are sensitive and responsive to any unmet needs for culturally competent communication.

These health equity initiatives are already in place within the SHS Cancer Program at the Cancer Center, and will continue to be scaled as needed to accommodate the growing cancer patient population served by SHS.

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.

In addition to the anticipated impacts described above, the Proposed Project will advance health equity by ensuring that SHS patients continue to have access to the most advanced and effective means of quality care, available locally in the same community. As is evidenced by the new Osteoarthritis and SRS programs previously described, SHS is committed to updating its clinical programs and offering patients in the SHS community the latest therapies to support patient needs. SHS is committed to doing this in the most fiscally responsible manner, with sensitivity to the growing financial burdens of health care costs.

Additionally, the expansion of access to these treatments through an additional linear accelerator, and thus expansion of access to SHS's integrated treatment approach, will be supported by SHS's clinical social work services as further discussed in Section F2.c. These services are intended to positively impact health outcomes and the quality of life of SHS's cancer patient panel.

The SHS social work services team has trained staff in place to address the litany of issues faced by SHS patients and their families, and to connect them to services and support mechanisms during difficult times. This can significantly impact both health outcomes and also their quality of life. SHS understands that it takes a team approach to understand and address the needs of cancer patients and their families, and it has in place a staff, infrastructure and culturally sensitive providers to work with patients to address those needs, connect them with resources, and to support their care and treatment.

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.

The Proposed Project will operate efficiently and effectively, and will improve continuity and coordination of care by SHS. SHS has efficiently and effectively operated its Cancer Program for decades, offering local access in the community to advanced treatments and specialists. Here, approval of the Proposed Project would provide adequate and timely linear accelerator access for growing patient volumes and expanding treatment options, delivered through an integrated health care model in which SHS specialists and primary care providers utilize a common medical record to coordinate and manage services across sites and modalities of care.

SHS utilizes the Epic medical record system to assist with care coordination and patient care management. All SHS providers and staff, including affiliated community providers, have access to the Epic EMR to provide integrated patient care to patients, to document care, and to communicate with patients as well as other providers and staff. For patients receiving oncology care, primary care providers are kept informed of all cancer related plans and treatments, including the expectations and outcomes associated with radiation therapy.

The SHS Cancer Program supports patients with multiple patient navigators who assist in coordinating and facilitating care efficiently. As a known point of contact for patients, SHS navigators provide patients with a consistent resource to answer questions, to clear barriers (e.g., scheduling or transportation issues), and to assist with a multitude of diverse needs, including bridging any gaps between primary care, specialty care, and cancer care. The navigators often reduce the time between diagnosis and treatment by making sure that patients are well-informed and by assisting with communication, prescriptions, and appointments.

In addition, the SHS Cancer Program provides a strong support network to serve patients' substantial and growing cancer care needs. Patient navigators are joined by social workers, dietitians, financial support specialists, nurses, and other care givers who work together to support and coordinate patient care.

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 consulted with regulatory agencies as follows: (a) meeting with the Department of Public Health, Determination of Need Program on July 29, 2025 regarding structuring the DoN Application; (b) emails with the Department of Public Health, Bureau of Community Health and Prevention (BCHAP) regarding any CHI commitment under Factor 6 on December 3, 2025; and (c) emailed written request for consultation to the following agencies:

- Executive Office of Health and Human Services;
- Massachusetts Office of Attorney General;
- Department of Public Health: Office of Legal Counsel, Determination of Need Program, Bureau of Health Care Safety and Quality (Division of Health Care Facility Licensure & Certification), Office of Health Equity, and Bureau of Community Health and Prevention; and
- MassHealth: Office of the Medicaid Director.

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.

SHS engaged the community about the Proposed Project in various manners in order to elicit feedback and to inform the need identified above.

First, the Proposed Project is based on the identified need for additional care that SHS has determined based in part on feedback from patients, including challenges faced by patients to access needed cancer care in a timely manner.

Second, as an initial step in the engagement process, SHS presented the Project at its Patient and Family Advisory Council ("PFAC") meeting on October 13, 2025. The PFAC represents the voice of SHS's patients, families and communities and is an important forum for creating partnerships and ensuring the delivery of high-quality, safe and positive health care experiences. The goals of the PFAC are to: (1) enhance the delivery of care and services; (2) ensure representation of the community's perspective; and (3) foster a culture of patient-centered care. During the PFAC meeting, overall feedback from the meeting was positive with PFAC members voicing support for the Project. During the meeting, SHS addressed PFAC members' questions regarding increased volume and referral patterns in light of patients' desire to stay local; factors contributing to growth in services; and the DoN approval process.

In addition to the SHS PFAC meeting presentation, SHS hosted a community forum on November 5, 2025 regarding the Proposed Project, which was not attended despite being publicized: during the PFAC meeting, via email to elected officials, and on the SHS website to inform the broader community of the opportunity to discuss the Proposed Project.⁹⁰ SHS continues to publicly advertise notice of this Proposed Project to its community, and to date, has not received any negative feedback or concerns regarding the Proposed Project.

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

⁹⁰ See Southcoast Health, *Public Announcement Concerning a Proposed Health Care Project* (Oct. 29, 2025), <https://www.southcoast.org/news/public-announcement-october-29/> (inviting members of the public to attend the community forum).

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”.

The SHS Cancer Program brings top tier cancer care to patients within the SHS community and South Coast region of Massachusetts. The SHS Cancer Program includes accredited cancer facilities that are equipped with the most advanced diagnostic and treatment equipment, and is staffed by highly-trained and experienced, board certified, compassionate caregivers who prioritize SHS patients and their specific care needs. To continue to provide this level of cancer care, SHS regularly seeks information and feedback from its community, in addition to utilizing a patient safety and quality/performance improvement infrastructure to ensure the delivery of oncology care in accordance with evidence-based standards. Feedback from community members, and analysis of community needs as well as treatment and demographic trends, are an integral part of the SHS Cancer Program’s efforts to identify changing needs, current challenges and opportunities to enhance access to care.

Over the years, a number of patient groups have been formed to both support patients and to elicit feedback from their unique and valuable perspective, including the PFAC and CBAC referenced below. In direct response to patient need, the SHS Cancer Program employs two full time and two part time social workers, as well as a medical assistant to assist patients with tasks such as facilitation of rides and assisting patients with complex forms.

From a system level, SHS has demonstrated its commitment to developing and maintaining strong linkages with community partners. Through these partnerships listed below, SHS is able to provide more robust, community-informed services while more effectively addressing social determinants of health and advancing health equity. Community voice is central to SHS’s work and decision-making.

- **PFAC:** SHS worked closely with its PFAC Committee to understand and address patients’ interests, needs and concerns, and will solicit feedback from patients and local residents; foster ethnic/racial diversity representation; and provide interpreter services for Limited English speaking and the deaf and hard of hearing to members if needed. As referenced above, the Proposed Project was presented to SHS’s PFAC Committee on October 13, 2025.
- **Community Forum:** As referenced above, on November 5, 2025, SHS hosted an open forum in Fairhaven regarding the Proposed Project to solicit community feedback and address community priorities as part of the Proposed Project.
- **Community Benefits:** SHS has a robust Community Benefits Advisory Committee (CBAC) that is representative of the community served, as well as inclusive of stakeholders across a variety of sectors, including but not limited to transportation, recreation, and immigrant assistance services, and faith-based organizations. SHS is committed to fostering and sustaining an ongoing communication and engagement strategy to foster transparency, accountability, and shared decision-making.
- **Engage Local Public Health:** SHS has built strong relationships with local departments of public health, including in New Bedford and surrounding areas (e.g., Fairhaven), and Fall River. These partnerships have been instrumental in conducting community needs assessments (including SHS’s CHNA), as well as coordinating action plans to address community needs. SHS will continue to engage with local departments of public health to share knowledge about the community and ensure that cross-sector projects are aligned to meet community need.
- **Community Health Needs Assessment Review and Update:** SHS and the New Bedford Health Department completed the first Community Health Improvement Plan (CHIP), with focus on the City of New Bedford. This inter-organization collaboration brought together over 30 stakeholders to identify objectives and strategies that the community prioritized that are in alignment with the findings from the Community Health Needs Assessment (CHNA). With the success of this collaboration, came the formation of the Southcoast Community Health Alliance (SoCHA). SoCHA brings together organizations within the South Coast community that develop needs assessments. This Alliance collaboratively produced and provided the South Coast community with the FY25 Community Health Needs

Assessment – a comprehensive assessment of the most pressing needs of the community.⁹¹ These Alliance partners include one integrated health system (SHS), two Boards of Health (the New Bedford and Fall River Health Departments), three Federally Qualified Health Centers (HealthFirst Family Health Center, New Bedford Community Health, and SSTAR), and two Community Action Agencies (Citizens for Citizens and People Acting in Community Endeavors (PACE)).

- **Community Benefits Reporting and Regulatory Requirements:** SHS will be responsible for compliance with all reporting and regulatory requirements.
- **Integration of a Health Equity Lens:** SHS has prioritized health equity system-wide, and has also created a multidisciplinary Health Equity Committee to advise on these efforts. In 2024, SHS's hospital affiliate, Southcoast Hospitals Group, Inc. (which includes St. Luke's Hospital in New Bedford, Charlton Memorial Hospital in Fall River, and Tobey Hospital in Wareham), became one of the twelve hospitals in the U.S. (one of only 3 in Massachusetts) to achieve the Joint Commission's National Health Equity Certification. In September 2025, the Joint Commission re-evaluated and re-accredited our Health Equity Certification.

⁹¹ COMMUNITY HEALTH NEEDS ASSESSMENT, *supra* note 24.

C. Factor 2 – Health Priorities

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 SHS Cancer Center in Fairhaven, Massachusetts, has served the SHS community with accredited top quality care since 2011, including the provision of radiation therapy services.

As discussed in Section F1.a.iii, the cost for reinstating treatment capability on the 2011 linear accelerator in Fairhaven, Massachusetts would be up to \$490,000 annually as an operational expense only, without any capital or construction costs. The Proposed Project would use existing dormant equipment in existing space (i.e., an existing specialized vault, which would otherwise cost millions of dollars to construct new), thereby offering a cost-effective pathway to increase needed access to radiation therapy in a location already known and utilized by the SHS patient panel.

Based on current SHS estimates of incremental increases in treatment volume from overflow of the current linear accelerator and expansion of new innovative treatments, SHS estimates that the additional linear accelerator would support treatment for up to 270 additional new patients annually. This would mitigate volume spikes requiring extended treatment hours and also provide access to advanced treatment modalities not otherwise available in the region. It would also reduce the need for patients to travel outside of the community, including to Boston, to access advanced cancer treatment even in the event of increased demand for LINAC services.

As noted in Section F1.b.i, despite the Cancer Program's capability to provide certain SRS and LDRT for Osteoarthritis treatments, SRS cancer treatment availability is highly limited at the Cancer Center and SRS treatment for essential tremors is not currently available, and LDRT treatment is highly limited at SHS. Therefore, if clinically necessary, patients would be required to travel to Boston or Cape Cod, as applicable, to obtain such treatments. Keeping these services local to Bristol County conveys significant healthcare benefits to the community and SHS patient panel in terms of access to high-quality care, while reducing overall healthcare and related travel spending for the patient and avoiding disjointed patient care.

The Commonwealth's goals for cost containment are supported through the Proposed Project's cost-effective use of existing equipment and space within the Cancer Center, thereby avoiding unnecessary health care related spending to effectuate the Proposed Project.

F2.b. Public Health Outcomes:

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

The number of new patient visits at the Cancer Center in Fairhaven has grown steadily since 2016 with significant increases over the past three years. See [Figure 6](#). With SHS's current and only linear accelerator at the SHS Cancer Center in Fairhaven regularly operating beyond standard business hours (8am-5pm) to accommodate patient panel need, and beyond standard capacity as compared to linear accelerators in comparator hospitals and accredited facilities, SHS's ability to withstand continued demand and provide growth in innovative treatment options is limited without additional capacity.

Accordingly, a second linear accelerator at this site would allow SHS to enhance accessibility to specialized treatment locally. As discussed in Section F1.b.i, patient outcomes are improved through timely access and geographic proximity to necessary radiation therapy. In addition, SHS has in place an integrated care delivery infrastructure to support primary and specialized care, supported by social workers and patient navigators, to enable improved outcomes and patient experience in relation to any expanded service offerings.

Providing expanded access to innovative treatment options would contribute to improvements in public health outcomes for patients who will receive care from an accredited facility utilizing best practice treatment standards. Providing patient treatment access to new Osteoarthritis or functional SRS treatment programs will also allow SHS to continue to grow and develop clinical expertise to best serve the SHS patient population locally. While SHS has the equipment and expertise to provide these services, SHS has been challenged to expand access to new and innovative treatment programs using the current single linear accelerator due to capacity constraints. Therefore, additional capacity with a second linear accelerator would allow SHS to expand services to advance patient care needs.

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.

Comprehensive Social Work Services

In addition to the regional health disparities and social drivers of health discussed in Section F1.b.iii and in the 2025 CHNA, SHS reports anecdotally that SHS cancer patients experience challenges related to: (a) maintaining housing and paying monthly living expenses due to reduced income due to a leave of absence from work or greater expenses associated with care; (b) accessing treatment if the patient is no longer able to drive, or does not have a car, or has inadequate support to bring them to treatment; (c) lack of health insurance or adequate coverage, or loss of coverage if the patient can no longer work, or if they age out of their parents' health plan coverage; (d) questions about end of life, wills, advanced directives, and preparing for death or paying for burials; (e) underlying substance use disorder or chronic mental illness who need additional support or treatment to be able to complete cancer treatment; (e) for patients who are undocumented, additional stressors related to access to care, financial burden and risk of deportation; and (f) language barriers and special cultural issues or religious beliefs that affect treatment options.

SHS makes significant efforts to address cancer patients' social determinants of health and connect patients to social services by providing comprehensive social worker services. SHS employs two full time and two part time social workers, as well as a medical assistant to assist cancer patients with a range of tasks and connect cancer patients and their families to social services and support mechanisms. SHS understands that it takes a team approach to understand and address the needs of cancer patients and their families, and it has in place a staff, infrastructure and culturally sensitive providers to work with patients to address those needs, connect them with resources, and to support their care and treatment.

The involvement of, and access to, social work services is essential for improving outcomes and quality of life for SHS cancer patients. A cancer diagnosis often prompts lifestyle changes, physical changes, emotional distress and financial distress – stressors which are exacerbated by underlying challenges associated with challenges outlined above. With the support of their social work services, as further described in Section F1.b.iii, SHS implements various health equity initiatives to address its patients' social determinants of health, including with respect to: transportation, financial assistance, food security, and culturally competent care.⁹² For example, social workers often facilitate rides to support patients' transportation needs and assist patients with complex forms to support health literacy.

SHS's process for connecting patients to appropriate services starts with screening the psychosocial needs of all patients and their families, including utilization of a Distress Monitoring Tool. Through this Tool, new patients rate their level of distress and identify the types of concerns they have (e.g., physical, emotional, spiritual, family or practical such as child care, housing, insurance/financial, transportation or work/school). If a patient rates their distress 4 out of 10 or greater, the patient is offered a referral to Clinical Social Work Services. Patients who are undergoing cancer treatment are also offered a PHQ-9 Depression screen. Patients with moderate or greater depression per that screening are also referred to the social work team. Moreover, any patient can self-refer or be referred to the social work services team by any SHS staff member. This includes doctors, nurses, pharmacists, nurse practitioners, nurse navigators, radiation therapists, medical

⁹² *Supra* § F1.b.iii.

assistants, coordinators, etc. SHS social workers also receive referrals from outpatient medical offices, hospital case managers, and palliative teams in the hospital and outpatient settings.

In addition, SHS coordinates with regional social services organizations to provide support to its cancer patients, including connecting patients with the Livestrong program through the YMCA for access to peer support groups, as well as referrals for local elder services and home health care, as appropriate. SHS also makes its Southcoast Resource Connect platform available to clinicians, socials workers and patients.⁹³ Resource Connect is an online local assistance directory to connect patients with free or low-cost programs across the South Coast region, including resources for access to food, healthcare, financial assistance, housing, caregiver resources, education, job training and transportation.

Integrated Cancer Care for Management of ACO Patients

SHS, through its direct subsidiaries Southcoast Health Network, LLC (“SHN”) and Southcoast Accountable Care Organization, LLC (“SACO”), is a Health Policy Commission (“HPC”) certified ACO that provides population health support and resources to its members, including via participation by SHN in the MassHealth Medicaid ACO program with WellSense Health Plan, and participation by SACO in the Medicare Shared Savings Program.⁹⁴ As an HPC-certified ACO, SHS has prioritized programs and initiatives to support patient-centered care and governance, drive quality improvement, advance health equity, and invest in population health. An example of these programs is SHN’s integrated care navigation program which supports the ACOs’ most complex, highest need populations via a portfolio of services, including complex medical, behavioral, social and pregnancy care management, bridge counseling, and pharmacy navigation. In particular, many of the Medicare ACO patients receiving cancer treatment at SHS are engaged in Care Navigation, Chronic Care Management (CCM) or Remote Patient Monitoring (RPM) – programs which benefit patient care and communication, as well as adherence to care plans. Through the activities of SHN and its affiliates, SHS works to provide and promote value-based cost-effective care across the continuum.

⁹³ See Southcoast Resource Connect, <https://southcoast.findhelp.com/>; Southcoast Health, *Five Years After Launching, Southcoast Health Resource Connect is an Essential Resource for Those Facing Difficult Life Challenges* (Sept. 1, 2025), <https://www.southcoast.org/news/resource-connect/>.

⁹⁴ HEALTH POLICY COMMISSION ACO CERTIFICATION PROGRAM, ACCOUNTABLE CARE ORGANIZATIONS IN MASSACHUSETTS: PROFILES OF THE LEAP 2024-2025 CERTIFIED ACOs 24-25 (Aug. 2024), https://masshpc.gov/sites/default/files/ACO%20profiles_accessibility.pdf (identifying SHS, inclusive of its SACO and SHN entities, as a HPC-certified ACO).

D. Factor 5 – Relative Merit

F5.a.i Description of Proposal and Alternatives:

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 involves reactivating an existing dormant linear accelerator as a second treatment machine at SHS's Cancer Center.

Quality: The Proposed Project will allow for additional patient access to radiation therapy services at a center that has been periodically approaching and exceeding capacity. The additional access will support the growing numbers of new cancer patients. Our treatment facility, an accredited top-tier cancer center with board certified providers and a well-established commitment to quality, would be able to offer more patients local, convenient care to help address noted health and socio-economic disparities within the community.

Efficiency: The Proposed Project is highly efficient as SHS will be able to complete the Proposed Project with equipment it already owns and has on-site at the Cancer Center, and SHS will not need to purchase new capital equipment or to build a radiation bunker to house the linear accelerator. The only costs associated with this project are annual operating costs for an engineering service contract and for the incremental physics and radiation therapist staff that would be required to support new patient volume.

Capital Expense: There is no capital expense associated with the Proposed Project.

Operating Costs: The annual operating cost associated with bringing this older linear accelerator back on line (last used on 9/12/2025) is up to \$490,000.

Alternative Proposal: The alternative is to keep a single linear accelerator at the Cancer Center in Fairhaven and to operate it as the only LINAC machine for patients at that location.

Quality: This alternative does not address the need to increase SHS's capacity to provide LINAC services to address growing patient volumes based on internal data trends and that have been projected for Bristol County (which, as noted above, already has a higher incidence of cancer diagnoses than the Commonwealth and the country overall). It would also prevent SHS from expanding radiation therapy options that are currently either volume-suppressed or that have not yet been developed due to capacity limitations and for which patients would otherwise be required to travel further distances to receive. Further, it would preclude SHS from having a backup LINAC machine available to provide care in the event that the primary LINAC at the Cancer Center is unavailable for any period of time, which could adversely impact quality of care and outcomes for patients forced to delay, suspend, or relocate treatment services.

Efficiency: With a growing patient need, and due to the significant negative impact of delaying needed cancer treatments, it is essential to maintain the capacity to treat cancer patients as early as possible. The status quo of one LINAC at the Fairhaven Cancer Center does not address the current need and demand for care. SHS is already frequently extending treatment hours and exceeding standard capacity measures. Accordingly, failing to allow for growth could delay cancer care for patients who need radiation treatment, and continue to place a significant burden on providers and staff to manage the growing need with one LINAC. This would not only have a negative

impact on the health and well-being of prospective patients who are already at a health disadvantage, but this would be more costly for SHS to treat, and more costly to the health care system in Massachusetts as more patients either travel for care to larger (potentially higher cost) institutions, or potentially delay or forgo needed care and increase the likelihood of decompensation or poorer outcomes.⁹⁵

Capital Expense: There would be no capital expense associated with making no change to the number of linear accelerators at the Cancer Center. Put another way, there are no savings in capital expenditures under this alternative proposal.

Operating Costs: There would be no incremental increase to operating costs from making no change to the number of linear accelerators at the Cancer Center.

⁹⁵ McGarvey et al., *supra* note 41.

E. Data Appendix

Figure 1a: Bar chart depicting number of cancer patients diagnosed and/or treated by the SHS Cancer Program each calendar year from 2010 to 2024. Between 2022 and 2024, the SHS Cancer Program diagnosed and/or treated a total of 4,991 patients (1,506 in 2022, 1,673 in 2023, and 1,812 in 2024).

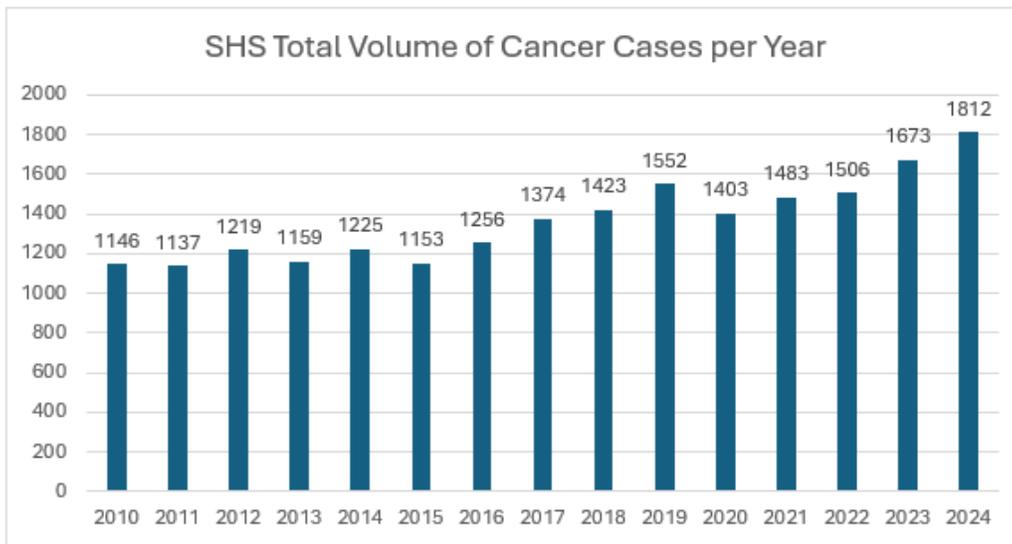


Figure 1b: Graphic depicting volume of male and female patients diagnosed and/or treated for cancer at SHS each calendar year from 2010 to 2024.

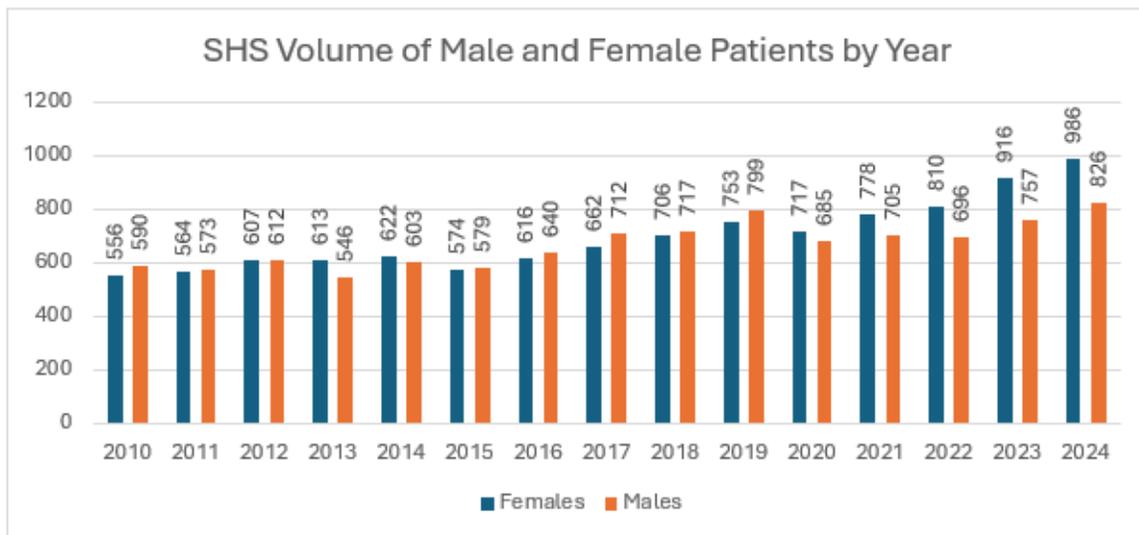


Figure 2a: Plot chart depicting number of new patients diagnosed and/or treated by SHS on a monthly basis from September 2023 through August 2025, with steadily increasing trend line.

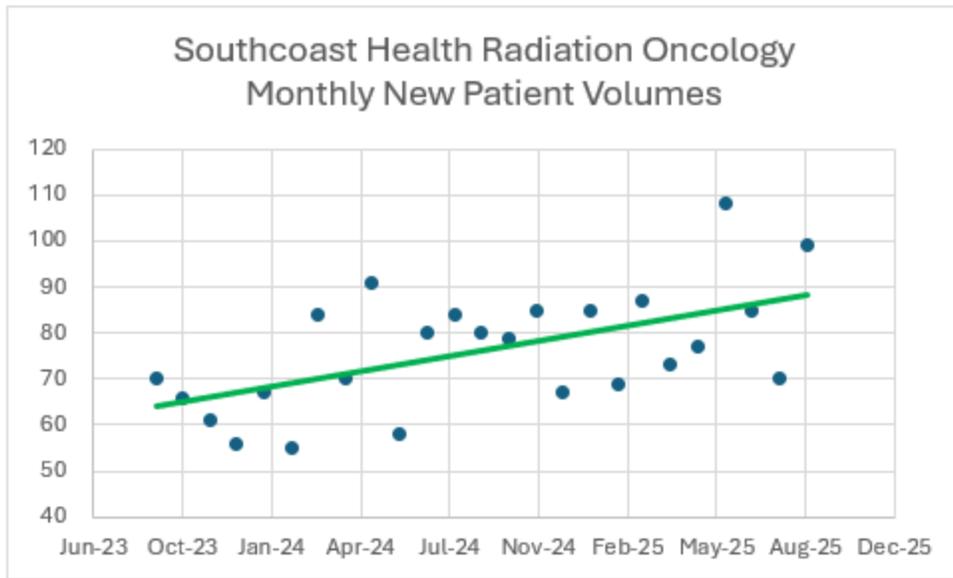


Figure 2b: Plot chart depicting volume of oncology treatments performed by SHS on a monthly basis from September 2023 through August 2025, with steadily increasing trend line.

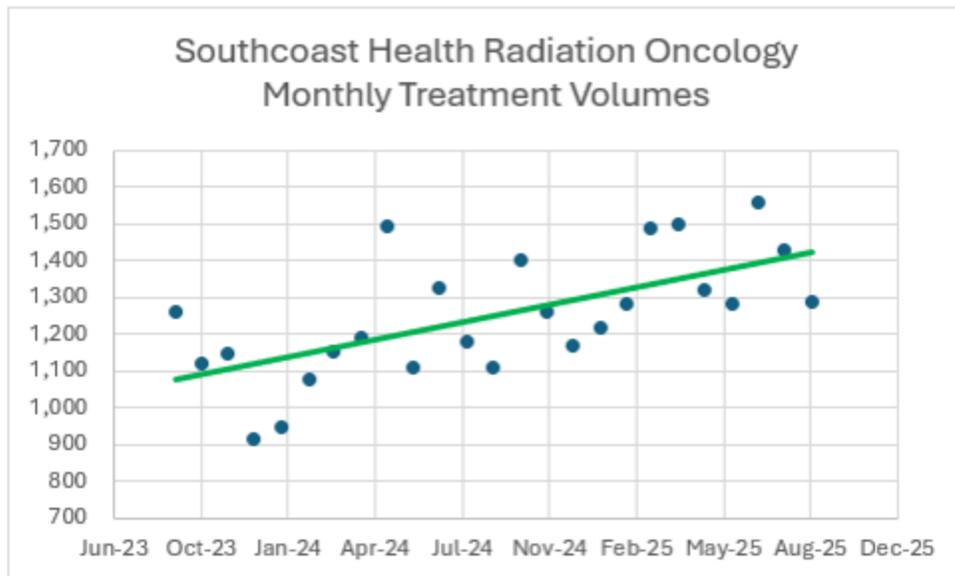


Figure 3: Graphic of volume of oncology patients diagnosed and/or treated by SHS from the top 15 most represented zip codes associated with patient residence in 2020 as compared to 2024.

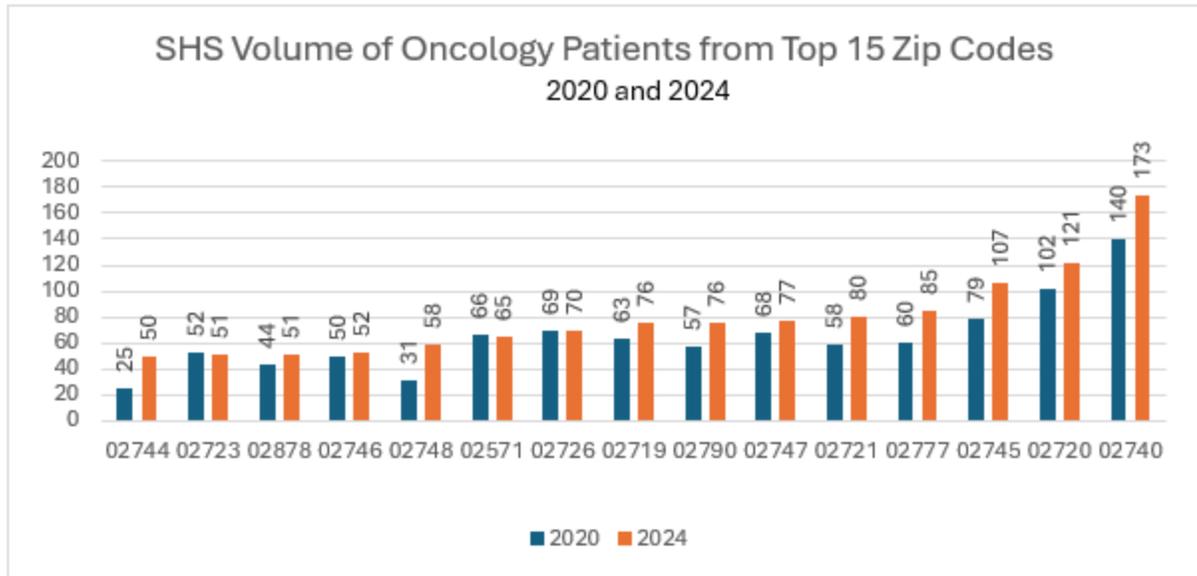


Figure 4: Line chart depicting age of cancer diagnosis for all patients diagnosed and/or treated for cancer at SHS from 2022 to 2024, depicting median age at approximately 55 years.

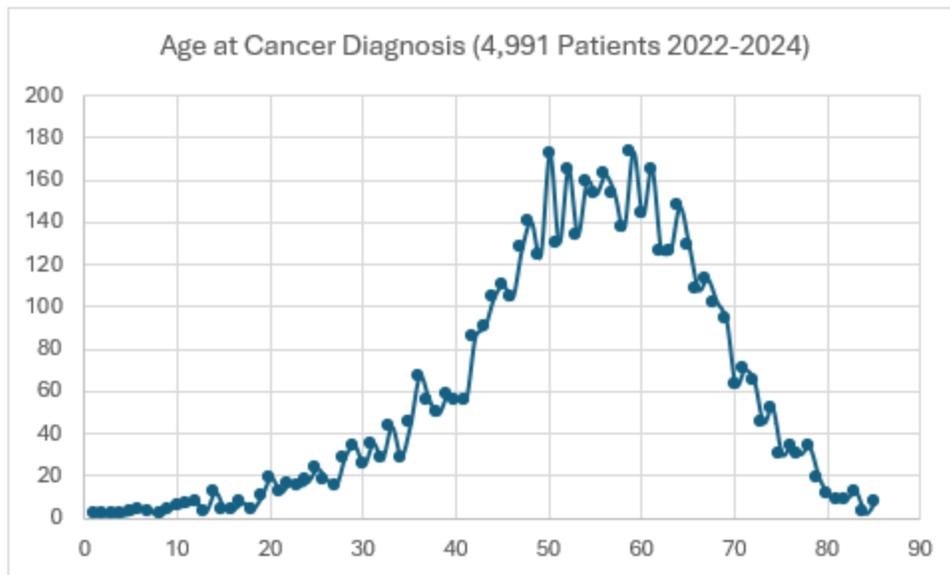


Figure 5: Bar chart depicting primary disease sites for all patients diagnosed and/or treated for cancer at SHS from 2022 to 2024 based on SHS internal reported Cancer Registry data. Data is presented only for disease categories with a count of at least 10 patients, and identifies breast, lung, prostate and colorectal as the top disease sites at SHS.

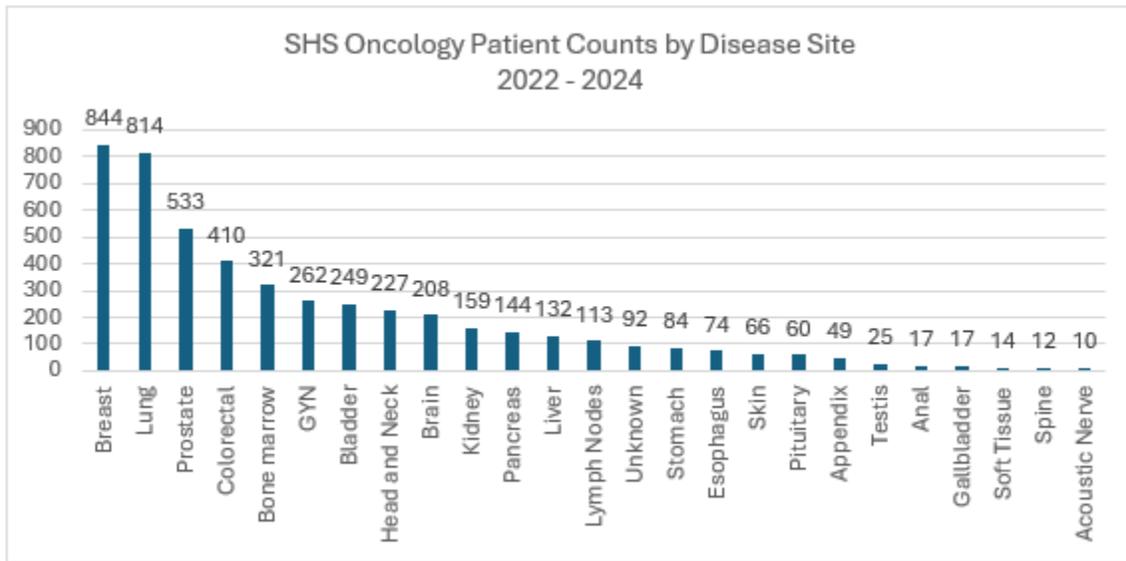


Figure 6: Line chart depicting annual volume of new patient visits at the SHS Cancer Center in Fairhaven, Massachusetts from 2016 to 2024.

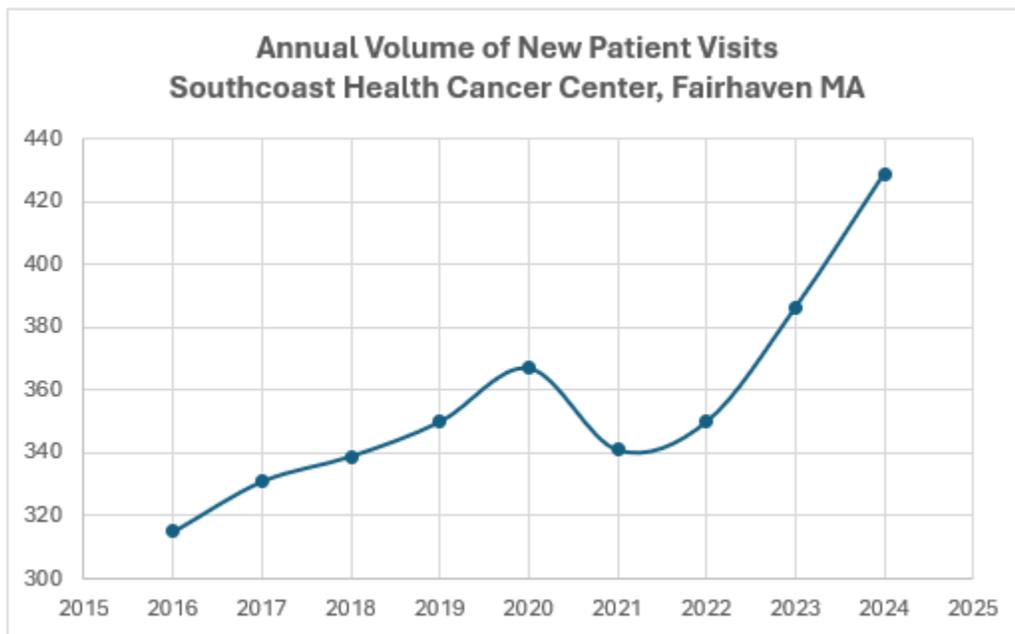


Figure 7: Bar chart depicting annual volume of Stereotactic Body Radiation Therapy (SBRT) treatments performed by the SHS Cancer Program.

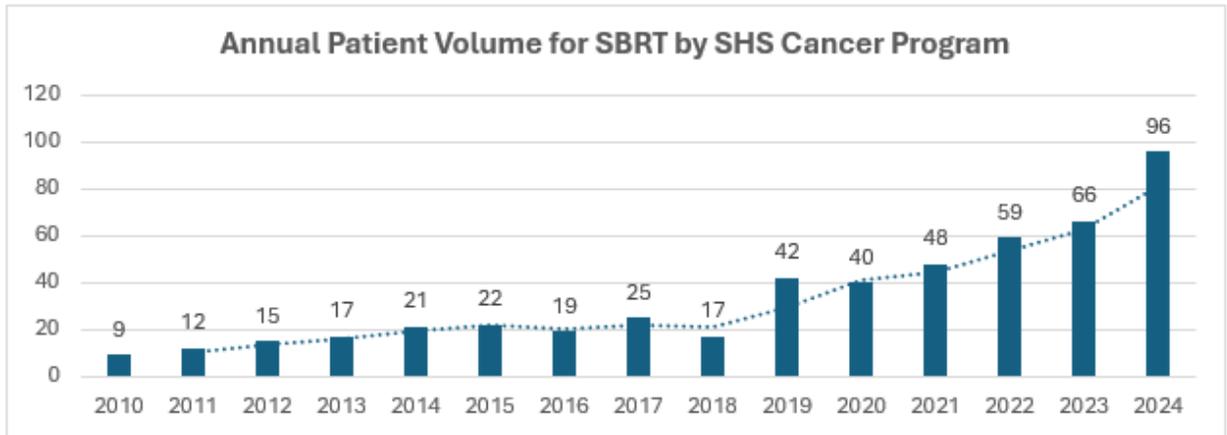


Figure 8: Line chart depicting annual volume of Stereotactic Radiosurgery (SRS) treatments performed at the SHS Cancer Center in Fairhaven, Massachusetts from 2011 to October 2025.

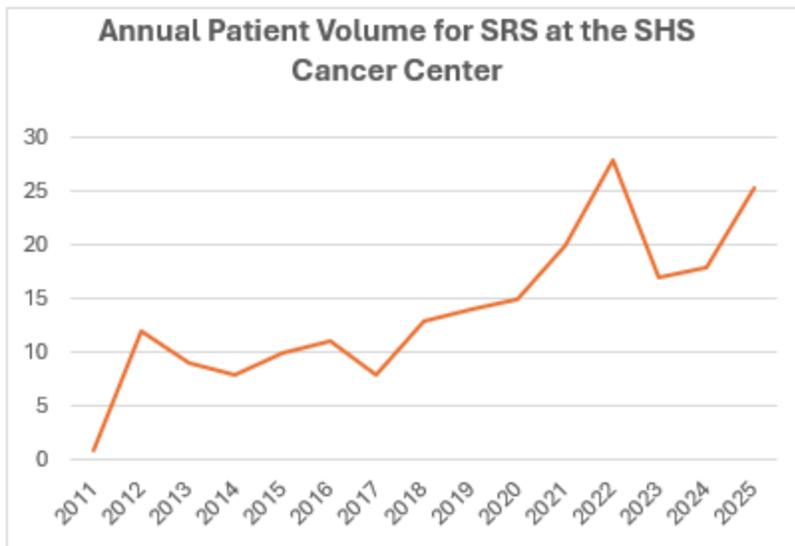


Figure 9: Chart containing Massachusetts population estimates and projections by age and sex for 2010 through 2050. Data is from UMass Donahue Institute Population Projections.⁹⁶

County	Age	Sex	2010	2020	2025	2030	2035	2040	% Inc 25-40	2045	2050
Bristol	70-74	Female	8,815	14,765	15,869	18,123	18,864	17,765	111.9%	16,387	15,753
Bristol	75-79	Female	8,030	10,322	13,286	14,417	16,435	17,067	128.5%	16,083	14,890
Bristol	80-84	Female	7,484	6,729	8,287	10,686	11,617	13,202	159.3%	13,717	12,921
Bristol	85+	Female	9,112	8,584	8,824	9,910	11,966	13,607	154.2%	15,491	16,740
Bristol	70-74	Male	7,293	12,346	13,662	15,432	16,283	15,306	112.0%	13,980	13,415
Bristol	75-79	Male	5,654	8,341	10,431	11,535	13,009	13,690	131.2%	12,896	11,817
Bristol	80-84	Male	4,614	4,721	6,320	7,750	8,571	9,639	152.5%	10,148	9,567
Bristol	85+	Male	3,830	4,232	4,459	5,329	6,461	7,395	165.8%	8,367	9,043

⁹⁶ UMass Donahue Institute, *Massachusetts Population Estimates Program* (2024), <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections>.