

NARRATIVE

DETERMINATION OF NEED APPLICATION #Atrius Health, Inc. -22101711-RE

NARRATIVE

2. Project Description

The Applicant is Atrius Health, Inc. The Applicant and its affiliate, Atrius MSO, LLC own and operate 30 medical practice locations in Massachusetts. Atrius Health, Inc. is a Massachusetts nonprofit multi-specialty medical group practice organized under M.G.L. c. 180 that holds the clinic and satellite licenses for its locations licensed by the Massachusetts Department of Public Health (DPH) under M.G.L. c. 111 s. 51 and is a Massachusetts Health Policy Commission (HPC) Certified Accountable Care Organization (ACO). Atrius MSO, LLC provides administrative and support services to Atrius Health, Inc. under an administrative services agreement.

In 2016, Atrius Health acquired PMG Physician Associates (“PMG”), a medical practice with seven practice locations in the Plymouth region (four in Plymouth, one in Kingston, one in Duxbury, and one in Bourne) and PMG became part of Atrius Health. Atrius Health is in the process of consolidating six of these practice locations (the Bourne practice location will remain at its current location)– including all of their provider and support personnel - into a single location in Plymouth at 36 Shops at 5 Way, Plymouth, MA (the “Plymouth Practice”). The Plymouth Practice will be licensed as a new satellite clinic of the Atrius Health - Harvard Vanguard Medical Associates Wellesley Practice. The construction plans are concurrently under review by the DPH Plan Review Department.

Like Atrius Health’s other licensed clinic locations, the Plymouth clinic satellite will be a multispecialty practice, offering a full range of services including internal medicine, pediatrics, and various specialty and ancillary services, including pharmacy, lab and radiology. Atrius Health is filing this Notice for Determination of Need (DON) application to provide advanced imaging modalities of MRI and Computerized Tomography (CT) at the Plymouth Practice. Specifically, Atrius Health is seeking approval for one fixed/installed scanner to provide full-time CT services and two days of service of a mobile MRI at the Plymouth Practice (the “Proposed Project”). Atrius Health will either purchase or lease the CT scanner. The MRI services will be provided pursuant to an existing lease that Atrius Health currently holds for provision of mobile MRI services. The Proposed Project will complement the general diagnostic imaging modalities (X-Ray and ultrasound) which will be available at the Plymouth Practice.

The total capital cost for the Plymouth Practice, including all DON required equipment, is estimated to be \$18 million. Because this amount is below the capital expenditure threshold for requiring a Notice of DON for the construction of a new clinic facility, and the associated expenditures are for outpatient services only (and there are no ASC services), this application for a Notice of DON is limited to the Substantial Change in Service associated with the addition and expansion of DON-required Equipment.

The Proposed Project is part of Atrius Health’s ongoing efforts to improve access to necessary care, promote care coordination, and help control total medical expense (TME) for the community from Plymouth, the surrounding towns, and the Commonwealth. The Proposed Project is driven by a need to expand access to cost-effective advanced imaging for Atrius Health patients in the greater Plymouth area currently served by the PMG practice locations and which will be served in the future by the Plymouth Practice. Today, the only available CT and MRI services in the Plymouth area are higher cost, hospital-based services. The closest Atrius Health (ambulatory) location for CT and MRI services is approximately

30 minutes away in Weymouth, MA. By having access to these advanced imaging modalities in an outpatient physician practice setting closer to their homes, patients in the Plymouth Practice service area will be more likely to receive the right care, in the right place, at the right time. Care coordination will be greatly improved by retaining these procedures within the Atrius Health provider network, utilizing Atrius Health's dedicated primary care focused radiology team and a common electronic medical record (EMR) and common Picture Archiving and Communication (PAC) system for radiology services (including MRI and CT). These integrated systems support real-time communication among Atrius Health providers and seamless access to imaging and other test results, as well as patient medical history, including prior imaging, helping to avoid duplicative testing. By integrating MRI and CT into the range of services available to Plymouth Practice patients, the Proposed Project will help reduce the number of procedures performed at higher cost outside facilities and the resultant delays in the reporting of findings and results which can affect patient outcomes.

Atrius Health's historical utilization data strongly suggest that demand for these advanced imaging modalities has been increasing; when coupled with evidence of the aging of the patient population in Massachusetts, it is likely that demand will continue on an upward trajectory. Today, patients over age 19 constitute 96% of the Plymouth patient panel, and nearly 36% are over the age of 65. As the population continues to age, the need and demand for access to MRI and CT imaging services will continue to rise. By improving access to these services, there will be more timely diagnosis of illness and disease and referral to treatment. Offering MRI and CT imaging services locally, at the same location with other providers and specialties, will facilitate "one-stop shopping" for patients who seek or require additional services, and help address barriers to timely receipt of necessary care, such as limited transportation options.

Atrius Health's care model is focused on improving health outcomes through cost-effective delivery of coordinated services. Atrius Health's system of integrated primary, specialty and ancillary services enables Atrius providers to refer patients within the Atrius Health network, as clinically appropriate and in accordance with patient preferences, ensuring highly coordinated care in the lowest cost setting possible. The care model forms the foundation for Atrius Health's long and successful history of participating in value- and risk-based arrangements with commercial and government payers. Under these arrangements, Atrius Health is fully accountable, financially and clinically, for all care and treatment rendered to its patients. Atrius Health's experience with value-based care includes participation in alternative payment models targeted to vulnerable populations, such as MassHealth members and Medicare beneficiaries. Atrius Health currently participates in the Medicare Shared Savings Program, as well as in the Centers for Medicare and Medicaid Services Innovation Center (CMMI) Primary Care First model (PCF). Atrius Health has been certified as an accountable care organization (ACO) by the HPC since 2017 and participates in MassHealth as the ACO Partner in an Accountable Care Partnership Plan.

Atrius Health has demonstrated its commitment to the Commonwealth's cost containment goals over the years through its emphasis on the provision of high value, coordinated care and the Proposed Project is aligned with this focus. Atrius Health's achievements are predicated in part on offering a range of services within its own practices, minimizing the need to send patients to more expensive hospital-based or hospital-affiliated providers with higher rates, administrative inefficiencies associated with these external referrals, and disruptions to care. The most recent cost trends report shows Atrius Health with the lowest percentage among provider organizations of certain services encounters taking place at a hospital outpatient department in 2019, and second lowest in 2020.¹ The HPC 2021 Cost Trends Report shows

¹ <https://www.mass.gov/doc/2022-cost-trends-report-chartpack/download> (p. 63)

Atrius Health with the lowest spending on low-value services among provider organizations for 2018² and Atrius Health remained among the provider organizations with the lowest spending on low-value services in 2019.³ The HPC reported in its Board Meeting on June 8, 2022 that Atrius Health was consistently among the three provider groups with the lowest unadjusted total medical spending per member per year (PMPY) for the five year period 2015-2020.⁴ After adjusting for patient risk scores and other characteristics, the HPC reported Atrius Health had the second lowest medical claims spending PMPY in 2019⁵. As demonstrated by this performance data, Atrius Health is clearly a low-cost provider. Atrius Health believes that the addition of a CT scanner and MRI services to the Plymouth Practice will further lower the cost of care of the patients served at this new location.

The Proposed Project will also allow Atrius Health to leverage the capacity of its existing mobile MRI lease, keeping capital expenditures down. Currently, Atrius Health leases a mobile MRI unit on a monthly basis and has DPH approval to provide mobile MRI services at two of its licensed clinic locations - three days of service at the Atrius Health Chelmsford clinic satellite and two days of service at its Concord clinic satellite. The Proposed Project will maximize use of the equipment under the current lease (i.e., by having the MRI in service 7 days/week) with no additional lease expense and minimal new capital expense.

Approval of the Proposed Project will lead to improved patient health outcomes and community health through better access to these high-quality services in an appropriate setting and more timely diagnosis of illness and disease. Furthermore, offering these services in a lower-cost, efficient, ambulatory setting and within the Atrius Health system of coordinated care will contribute to lowering costs for patients, payers and the Commonwealth. For these reasons and those set forth below, the Proposed Project meets the factors for DON approval.

² <https://www.mass.gov/doc/2021-cost-trends-report-chartpack/download> (see page 59)

³ <https://www.mass.gov/doc/2022-cost-trends-report-chartpack/download> (see page 69).

⁴ <https://www.mass.gov/doc/presentation-board-meeting-june-8-2022/download> (slide 27)

⁵ <https://www.mass.gov/doc/presentation-board-meeting-june-8-2022/download> (slide 28)

13. Factors

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 measure, demographics including age, gender and sexual identity, race, ethnicity, socioeconomic status and other priority populations relevant to the Applicant's existing patient panel and payer mix.

Atrius Health is a Massachusetts non-profit multispecialty medical group with more than 30 locations across eastern Massachusetts. Atrius Health provides a range of services including primary and specialty care, and associated ancillary services, such as imaging and lab services, to its 383,507 patients⁶. Atrius Health has a history of entering into risk-based arrangements with payers under which Atrius Health is fully accountable, financially and clinically, for all care and treatment rendered to its patients. Atrius Health is committed to value-based care and strives to provide the right care, at the right time, in the right place, at low cost.

1. Atrius Health Patient Panel

Atrius Health's patient panel for the period January 1, 2022 through June 30, 2022 was estimated to be 383,507 unique patients; Table 1 shows the historic patient panel volume since 2019.

Table 1: Atrius Health - Patient Panel, January 2019 – June 2022

	2019	2020	2021	2022*
Unique number of patients served	427,618	417,689	381,725	383,507

*Reporting unique patients based on patient encounters from January 1 - June 30, 2022.

The top 15 towns from which Atrius Health has patients are Boston, Plymouth (3.3%), Quincy, Cambridge, Somerville, Braintree, Medford, Dorchester, Lowell, Dedham, Weymouth, Peabody, Norwood, Newton, and Arlington. These 15 towns account for 32.6% of Atrius Health's total patient panel.

The Atrius Health patient panel mix can be broken down by gender, age, and race as outlined in Table 2 based on 2021 actual annual data. Similar to statewide experience reported by the UMass Donahue Institute, Atrius Health has seen increases in the aging population evidenced by the increasing percentage of the patient panel over age 65.⁷

Table 2: Atrius Health Patient Panel Demographics

	2019	2020	2021	2022*
Gender				
Female	58.4%	58.3%	58.0%	58.1%
Male	41.6%	41.7%	42.0%	41.9%

⁶ Patient Panel data through June 2022

⁷ <https://www.mass.gov/doc/population-projections-methods-umdi-massdot/download>

	2019	2020	2021	2022*
Age				
0 to 18	0.7%	0.7%	0.7%	0.7%
19 to 64	76.8%	76.1%	75.1%	74.8%
65+	22.6%	23.2%	24.2%	24.5%
Race				
Caucasian	68.8%	68.1%	67.7%	67.4%
Black	6.7%	6.7%	7.1%	7.3%
Asian	6.5%	6.6%	6.8%	7.3%
Patient Declined	11.0%	11.6%	11.2%	10.4%
Hispanic	3.3%	3.4%	3.6%	3.8%
Other	3.6%	3.5%	3.5%	3.6%
Native American	0.1%	0.1%	0.1%	0.1%
Native Hawaiian	0.0%	0.0%	0.0%	0.0%

* Based on patient encounters from January 1 - June 30, 2022

Atrius Health has a history of entering into risk-based arrangements with payers pursuant to which Atrius Health is fully accountable, financially and clinically, for all care and treatment rendered to its patients. In 2021, more than half (54.3%) of the Atrius Health Patient Panel was enrolled in risk-based arrangements; the remainder were in fee for service type arrangements.

The payer mix for CT and MRI services rendered to the Atrius Health Patient Panel in 2021 is set forth below in Table 3.

Table 3: Atrius Health – Patient Payer Product Mix

Service	Product Category	2019	2020	2021	YTD Aug 2022
CT	Commercial HMO	37.5%	34.3%	30.6%	29.8%
	Commercial PPO/Indemnity	16.4%	16.2%	16.1%	14.6%
	Medicaid HMO	4.0%	4.3%	5.0%	4.7%
	Medicare	27.2%	32.7%	37.6%	39.7%
	Medicare HMO	12.9%	12.3%	10.6%	10.0%
	Other Government	2.0%	0.1%	0.1%	0.1%
	Self Pay	0.1%	0.1%	0.1%	1.1%
MRI	Commercial HMO	43.2%	41.6%	37.4%	35.2%
	Commercial PPO/Indemnity	20.0%	19.5%	18.8%	18.1%
	Medicaid HMO	5.7%	5.9%	6.2%	5.8%
	Medicare	19.8%	23.9%	29.7%	33.0%
	Medicare HMO	8.9%	8.9%	7.9%	7.6%
	Other Government	2.3%	0.2%	0.1%	0.1%
	Self Pay	0.0%	0.0%	0.0%	0.1%

2. Plymouth Practice Patient Panel

As described in the Project Description, the Proposed Project will be in Plymouth, MA. This will be a new, DPH licensed clinic satellite resulting from the consolidation of the following six (6) PMG practice locations:

- Duxbury—20 Tremont Street Duxbury, MA 02332
- Kingston - 214 Main Street Kingston, MA 02364
- Plymouth—Cordage Park, 10 Cordage Park Circle, Plymouth, MA 02360
- Plymouth—Court Street, 362 Court Street, Plymouth, MA 02360
- Plymouth—Long Pond, 110 Long Pond Road, Plymouth, MA 02360
- Plymouth—Pine Hills, 3 Village Green North, Plymouth, MA 02360

The PMG practice located at 2 Technology Park Drive in Bourne, MA will remain at its present location. The patients for the Bourne practice location are included in the Plymouth Practice Patient Panel because they are likely to obtain CT and MRI services at the new Plymouth Practice location, in addition to the patients who currently obtain care at the six locations which will be consolidated at the Plymouth Practice. The Plymouth Practice Patient Panel is represented by patients living in the greater Plymouth area, primarily from the following Plymouth, Kingston, Buzzards Bay, Carver, Duxbury, Sagamore Beach, Halifax, Sandwich, Middleboro, Pembroke, Plympton, Marshfield, Wareham, East Falmouth, and East Sandwich.

The Plymouth Practice Patient Panel comprises about 7.6% of the total Atrius Health patient panel. The demographics of the Plymouth Practice Patient Panel are relatively consistent with the Atrius Health patient panel in terms of gender, race, and payer mix. The biggest demographic difference between the broader Atrius Health patient panel and the Plymouth Practice Patient Panel is age. Atrius Health data for 2022 year to date show that over 35% of the Plymouth Practice Patient Panel is over the age of 65 compared to 24% of the total Atrius Health patient panel. The Atrius Health patient panel has experienced an increasing percentage of patients aged 65 and over, year over year, for the three-year period 2019-2021 as noted in Table 2 above. The over 65 population in the southeast region of Massachusetts where the Proposed Project will be located is expected to increase to 24% of the region's population by 2035 according to the Donahue Institute's Long-term Population Projections for Massachusetts Regions and Municipalities.⁸ Factor 1.a.ii details the increased need for advanced imaging services of MRI and CT in the aging and aged population.

- The patient panel associated with the PMG practices (i.e., the Plymouth Practice Patient Panel) obtains care from PMG, now Atrius, providers specializing in Internal Medicine/Family Medicine, ENT, Visual Specialty, Orthopedics, Podiatry, and Urgent Care. These primary care and specialty providers typically order CT and MRI exams for the diagnosis and management of disease. The volume of MRIs and CTs historically performed at Atrius Health locations is outlined in the tables below. Of note, 2020 volumes were negatively impacted by the COVID-19 Pandemic.
- **MRI Utilization:** PMG providers placed orders for 1,286 MRIs between April 1, 2021, and March 31, 2022. 1,059 of these orders were referred to external provider locations and 227 were referred to an Atrius Health practice with MRI services. The top 10 MRI exams orders placed, comprising 95% of total MRI orders placed for the Plymouth Practice Patient Panel, are: lumbar spine, brain, abdomen, cervical spine, upper extremity joint, lower extremity joint, magnetic resonance angiography of the head, magnetic resonance angiography of the neck, thoracic spine, and breast. MRI services are provided in Chelmsford, Concord, Kenmore (Boston), Norwood, and Weymouth. The Chelmsford and Concord locations are serviced with a mobile MRI unit.

⁸ [UMDI LongTermPopulationProjectionsReport_2015_04_29.pdf \(donahue-institute.org\)](https://donahue-institute.org/UMDI_LongTermPopulationProjectionsReport_2015_04_29.pdf) P 31

- **CT Utilization:** PMG providers placed orders for 2,635 CTs in the same period. 2,151 of these orders were referred to external locations and 214 were referred to another Atrius Health location. The top 5 CT exams ordered, comprising 92% of the total CT orders for this panel, were abdomen/pelvis, chest, chest for lung cancer screening (LDCT), brain, and abdomen. CT services are provided at three (3) locations: Kenmore, Weymouth, and Norwood.

Total CTs performed at Atrius Health				
Month	2019	2020	2021	2022
January	1,702	1,666	1,371	1,622
February	1,438	1,490	1,427	1,741
March	1,646	1,061	1,751	2,156
April	1,738	500	1,607	1,880
May	1,796	796	1,567	1,857
June	1,637	1,198	1,724	1,918
July	1,640	1,447	1,659	1,683
August	1,643	1,572	1,612	--
September	1,566	1,624	1,808	--
October	1,776	1,787	1,755	--
November	1,475	1,576	1,821	--
December	1,453	1,609	1,870	--
Total	19,510	16,326	19,972	12,857

Total MRIs performed at Atrius Health				
Month	2019	2020	2021	2022
January	2,111	1,969	2,077	1,869
February	1,929	2,074	1,864	1,847
March	2,231	1,556	2,163	2,263
April	2,119	420	2,036	1,993
May	2,246	804	2,178	2,166
June	2,209	1,318	2,174	2,124
July	2,193	1,761	2,190	2,137
August	2,246	1,889	2,113	--
September	2,006	1,837	2,102	--
October	2,242	2,001	2,165	--
November	2,015	1,834	1,977	--
December	2,080	1,995	1,985	--
Total	25,627	19,458	25,024	14,399

Although Atrius Health has CT and MRI equipment in other regions, there is currently no way Atrius Health can adequately serve the disproportionately elderly population of the PMG region which will be served by the new Plymouth Practice. Current wait times in Weymouth, the closest Atrius Health location to Plymouth that offers imaging services, are 1-2 days for routine CT exams and nearly two weeks for routine MRI exams. Including CT and mobile MRI at the Plymouth Practice will ensure that elderly patients, who bear the brunt of diseases for which these imaging modalities are useful, are able to access this care conveniently and efficiently. The ability to offer imaging services at the Plymouth Practice will help ensure Atrius Health's patients can access recommended imaging exams and facilitate continuity of care.

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.

1. Aging Population

MRI and CT are imaging modalities of great utility in older adult patients due to the higher prevalence of conditions which these modalities can diagnose. MRI is most beneficial for diagnosis and treatment planning for a variety of neurological disorders, musculoskeletal conditions, vascular diseases, and cancers that have higher incidence rates related to aging. Like MRI, CT scanning plays a role in evaluating patients with potential stroke and other brain diseases, arthritic conditions, and cancers. In addition, CT is optimally suited to diagnose and evaluate lung diseases such as chronic obstructive pulmonary disease, interstitial lung disease, and both primary and secondary lung malignancies. These conditions are prevalent within the Atrius Health patient panel today, and as the population ages, there will be increased need for advanced imaging to be able to diagnose and manage these disease states in the most expeditious, cost-effective manner.

A report by the UMass Donahue Institute in 2018 noted a 4.6% increase in the population in Plymouth, MA – where four of the PMG practices are currently located - between 2015 and 2018.⁹ Between 2020 and 2025, the population aged 0-64 in Plymouth is expected to decrease by 2% and the population of persons aged 65 and older is expected to increase by 18%, increasing the need for more accessible MRI and CT services¹⁰.

2. Need exists for local, more accessible, and cost-effective imaging services.

The need for the Proposed Project is demonstrated by the current number of MRI and CT exams ordered by PMG providers for the Plymouth Practice Patient Panel which are referred to by higher-cost hospital-based imaging providers. The Plymouth Practice Patient Panel currently has limited MRI and CT services access and options locally and may need to travel outside of their region for services. As noted in Factor 1.a.i, PMG providers placed orders for 1286 MRI scans and 2635 CT scans between April 1, 2021, and March 31, 2022, of which 1059 and 2151 respectively were made to external providers, despite patients being offered appointments at another Atrius Health location.

Through the Proposed Project, Atrius Health seeks approval to provide CT and mobile MRI services at the Plymouth Practice. These advanced imaging services will be used primarily by the Plymouth Practice Patient Panel. The only current local option for MRI and CT in the greater Plymouth region is through a local hospital facility. While PMG patients have the option to utilize Atrius Health's other MRI and CT services as described in Factor 1.a.i, the closest location is 30 minutes away and all of Atrius Health's existing MRI and CT locations are nearing capacity. Approval of the Proposed Project will provide Atrius Health's patient population with access to the most cost-effective

⁹ <https://www.mass.gov/doc/population-projections-methods-umdi-massdot/download>

¹⁰ <https://www.mass.gov/doc/population-projections-methods-umdi-massdot/download>

solution with the greatest care coordination. Based on Atrius Health's experience when it opened ultrasound services in Plymouth, Atrius Health anticipates that 75% of CT and MRI orders will be fulfilled at the Plymouth Practice resulting in a volume of 9-10 exams each day for two days of MRI service, and 6 CTs per day during a typical week (5 days of service).

Atrius Health is currently leasing on a monthly basis a mobile MRI unit that provides services at two other Atrius Health locations (Chelmsford 3 days a week and Concord 2 days a week). The Applicant seeks to add (2) additional days of service at the Plymouth Practice under the existing lease. By leveraging this equipment seven days per week, Atrius will be able to expand access with very little additional incremental cost to the organization for implementation. CT services will be provided by an installed CT scanner at the Plymouth Practice in addition to other on-site ancillary services including x-ray, ultrasound, lab, and pharmacy. This will allow for the right care to be provided to the patient panel when services are needed, in the right place, at the right time.

3. Increasing need for imaging services projected over the next 5 years

The need for the Proposed Project is also supported by projected demand. Atrius Health commissioned a comprehensive study completed by Stroudwater Associates in 2019, which informed Atrius Health's decision to consolidate the 6 PMG practice locations and identified the ancillary services to provide at the new location. Based on this study, Atrius Health expects that as overall patient volume at the Plymouth Practice and the Bourne practice grows over the next five years, MRI and CT utilization will increase proportionately as well. The growth projections in the table below assume that 75% of the current orders to non-Atrius Health providers for MRI and CT imaging services will be provided at the Plymouth Practice (similar to the actual growth experienced in ultrasound imaging when those services opened at one of the PMG practices in Plymouth in 2021.)

5-year growth projections of the total number of CT and MRI imaging exams performed for the Plymouth Practice Patient Panel

Modality	Year 1	Year 2	Year 3	Year 4	Year 5
MRI	956	1,173	1,537	1,611	1,626
CT	1,866	2,209	2,999	3,142	3,173

4. Increasing prevalence of diseases requiring diagnostic or treatment imaging modalities

MRI and CT are used for diagnosis and treatment planning for both chronic and acute illnesses that are not well evaluated by other imaging modalities. As noted in Factor F1a.i and above, the Plymouth Practice Patient Panel is aging, which is associated with an increased incidence of certain age-related disease processes that are effectively diagnosed using MRI and/or CT.

Based on provider order data from the Atrius Health EMR for the period April 1, 2021-March 30, 2022, nearly 25% of the CT orders placed by Atrius Health providers for the Plymouth Practice Patient Panel were placed for LDCT Chest for lung cancer screening. According to the American Cancer Society, annual LDCT screening for persons who meet eligibility criteria (age 50-80 and in fairly good health, currently smoke or have quit in the past 15 years, and have at least a 20 pack-year smoking history) has been shown to result in a significantly lower chance of dying from lung

cancer based on early detection.¹¹ Since the expansion of LDCT inclusion criteria in 2021, the number of eligible, enrolled patients in the Atrius Health LDCT program has increased. In addition to the expanded criteria for LDCT for lung cancer screening, Atrius Health implemented a “Best Practice Advisory” within the electronic medical record in 2021 to prompt providers to order LDCT for eligible patients, using a process similar to what is in place for reminding patients of the importance of an annual mammogram. LDCT volume among the Plymouth Practice Patient Panel is expected to increase proportionately to the total Atrius Health patient panel. As of August 1, 2022, 67 unique PMG patients were enrolled in Atrius Health’s LDCT program, and 585 unique patient orders were placed for LDCT screening for the Plymouth Practice Patient Panel for the above referenced timeframe demonstrating need for access to CT exams. Early identification of lung cancer allows for better prognosis and decreased mortality¹². According to the American Cancer Society, “screening with LDCT has been shown to substantially reduce the risk of dying from lung cancer.”¹³ The table below demonstrates the Atrius Health LDCT program growth (note: 2020 screening volume was affected by the Public Health Emergency).

Atrius Health LDCT Program – CT screenings completed at Atrius Health		
Year	New Patient/Initial LDCT Screenings	Total LDCT Program Screenings (includes new patient/initial and follow-up screenings as part of the LDCT program)
2016	471	1,632
2017	719	1,929
2018	608	2,130
2019	634	2,510
2020	356	2,308
2021	750	2,945
2022 (thru 8/5/22)	876	2,133
Grand Total	4,414	15,587

F1.a.iii Competition:

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

The Proposed Project will compete on the basis of price, total medical expense, provider costs and other recognized measures of health care spending because it will provide a lower cost alternative to the only CT and MRI available to the Plymouth region located at a higher cost hospital outpatient department. The Proposed Project will allow Atrius Health patients to receive care not only at a lower cost, but also with improved coordination of care, since Atrius Health uses a single, integrated EMR across its practices. Additionally, value-based primary care is at the core of the practice’s strategy, operations, and culture. Atrius Health derives nearly 85% of its revenue from risk-based arrangements. Its core business model creates value for patients, purchasers, and public and private payers by leveraging population-based payments to deliver market leading total medical expense

¹¹ [Lung Cancer Early Detection | Lung Cancer Screening](#)

¹² <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening#bootstrap-panel--4>

¹³ <https://acsjournals.onlinelibrary.wiley.com/doi/full/10.3322/caac.21172>

performance, with particular efficiency in inpatient and outpatient hospital utilization, while providing a very high quality of care. The most recent HPC cost trends report shows Atrius Health with the lowest percentage among provider organizations of certain services encounters taking place at a hospital outpatient department in 2019, and second lowest in 2020.¹⁴ Atrius Health delivers medically necessary imaging services throughout its practices through fully integrated team of radiologists. Because Atrius Health operates as one system, using fully integrated EMR and PACS software platforms, Atrius Health can operate at a high level of efficiency and at a lower cost per imaging exam.

The HPC reported in its Board Meeting on June 8, 2022, that Atrius Health was consistently among the three provider groups with the lowest unadjusted total medical spending PMPY for the five-year period 2015-2020.¹⁵ After adjusting for patient risk scores and other characteristics, the HPC reported Atrius Health had the second lowest medical claims spending PMPY in 2019¹⁶.

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 the Applicant has identified.

The Proposed Project will meet the identified need for the Plymouth Practice Patient Panel as described in Factor F1.a.ii. The clinical value of MRI and CT as diagnostic tools for the identification of disease as well as treatment planning for various musculoskeletal, neurological, and other disorders and diseases has been well established. The Proposed Project will support the care and treatment needs of the Plymouth Practice Patient Panel in particular by improving timely access to these services when recommended by primary care and specialty providers including orthopedics, podiatry, ENT, and ophthalmology. Results from MRI and CT exams, in conjunction with Atrius Health's unique radiology practice discussed further in Factor F1.b.ii, provide primary care and specialty clinicians with valuable information in the care of the Plymouth Practice Patient Panel. Currently patients are referred to outside hospital-based providers of MRI and CT services at an increased cost to the patient due to facility fees and typically higher charges, and to Atrius Health under its risk-based contracts but also in the context of the resulting inefficiencies of lack of care coordination and communication of critical information.

1. Addressing Aging Population Imaging Needs

The patient panel that will be served by the Proposed Project is aging. As noted in Factor 1.a.ii., consistent with an aging population is the increased incidence of disease which has an associated increased need for diagnostic imaging. Aging increases the risk of chronic diseases including heart disease, stroke, and cancer. In addition to more pervasive medical conditions, the risk of accidents and injury, including falls, is higher in the aging population.¹⁷ Many of these injuries require timely access to CT and MRI to assess severity and expedite appropriate interventions and treatments. Across the Atrius Health patient population there is strong prevalence of vascular disease, various cancers, lung disease, stroke, as well as arthritis and connective tissue disease. MRI and CT are both readily used in the diagnosis, treatment planning, and monitoring of these diseases and injury.

¹⁴ <https://www.mass.gov/doc/2022-cost-trends-report-chartpack/download> (p. 63)

¹⁵ <https://www.mass.gov/doc/presentation-board-meeting-june-8-2022/download> (slide 27)

¹⁶ <https://www.mass.gov/doc/presentation-board-meeting-june-8-2022/download> (slide 28)

¹⁷ [Promoting Health for Older Adults | CDC](#)

- **MRI**

The National Institute of Biomedical Imaging and Bioengineering defines Magnetic Resonance Imaging as a non-invasive imaging technology that produces detailed anatomic images for the use of disease detection, diagnosis, and treatment monitoring. This advanced imaging modality is used in a wide array of clinical applications and has the advantage of not using ionizing radiation.¹⁸ MRI is particularly good at differentiating soft tissue abnormalities making the technology ideal for imaging joints, muscles, brain and spinal cord tissue, as well as bones and internal organs.¹⁹ There is an increased demand for this type of imaging since many of the conditions which it is capable of detecting are associated with an aging population.

Clinical applications of MRI include neurologic evaluation of the brain (including vessels) and spine, orthopedic evaluation of the spine and joints, and general imaging of the abdomen and internal organs. As mentioned in Factor F1.a.i, 95% of all MRI orders entered by PMG providers are for patients with conditions in these categories. MRI is vital to identifying demyelinating plaques, cerebral contusions, syringomyelia, and infarction including hemorrhagic and ischemic stroke, allowing early intervention and treatment leading to better patient outcomes.^{20, 21} Orthopedic imaging with MRI of the joints and spine provides high diagnostic accuracy for ligament and tendon tears, disc herniation, annular tears and other soft tissue and bony abnormalities. MRI imaging also provides disease progression and staging for oncology patients.²²

- **CT**

CT produces tomographic images or slices by quickly rotating an x-ray tube and detector around the patient's body. CT scans are used to identify disease or injury within various regions of the body including lesions in the abdomen, lungs, and brain. CT is particularly useful in diagnosing pulmonary embolisms (blood clots in the pulmonary veins) and brain hemorrhage.²³ CT scans provide physicians with a diagnosis or exclusion of disease within minutes and have been shown to reduce the rate of hospitalizations.²⁴

CT has also proven to be valuable in the early detection of lung cancer. The accessibility and availability of diagnostic imaging (as well as the quality of subsequent treatment) are directly associated with lung cancer outcomes. The United States Preventative Services Task Force, (USPSTF), has endorsed annual screening for LDCT for people aged 50-80 who are either current smokers or have quit in the past 15 years. The National Cancer Institute's National Lung Screening Trial documented that heavy smokers between the ages of 55-74 are 20% less likely to die from lung cancer when they are screened with LDCT of the chest.²⁵ As noted in Factor F1.a.ii, 25% of CT orders for the Plymouth patient panel are specifically for LDCT. Current practice at Atrius Health is to follow the Lung Cancer Screening with LDCT guidelines

¹⁸ [Magnetic Resonance Imaging \(MRI\) \(nih.gov\)](#)

¹⁹ [Magnetic Resonance Imaging \(MRI\) of the Bones, Joints, and Soft Tissues | Johns Hopkins Medicine](#)

²⁰ [MRI of brain infarction - PubMed \(nih.gov\)](#)

²¹ [Magnetic resonance imaging in neurological disorders - PubMed \(nih.gov\)](#)

²² [The role of MRI in musculoskeletal practice: a clinical perspective - PMC \(nih.gov\)](#)

²³ [Computed Tomography \(CT\) \(nih.gov\)](#)

²⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5183924/>

²⁵ [Computed Tomography \(CT\) Scans and Cancer Fact Sheet - NCI](#)

set forth by the Centers for Medicare & Medicaid Services (CMS). These guidelines require that patients meet certain eligibility criteria for the services to be covered as screening, including: age 50-77 years, have no sign of lung cancer, have a smoking history of at least 20 pack-years, currently smoke or have quit within the last 15 years. Patients aged 78-80 are recommended for screening by the American Cancer Society but are not currently covered under CMS reimbursement guidelines.²⁶

2. Addressing Current Need for Accessible Imaging Services

The accessibility and availability of advanced imaging modalities including MRI and CT have been challenged by the COVID-19 pandemic, which has resulted in longer wait times for these services and delayed diagnosis and treatment of disease nationally and internationally.^{27, 28} Local hospitals have been overwhelmed by the number of patients who need to be seen for imaging due to deferred care during the pandemic.²⁹ In general, sending patients outside of the Atrius Health system for imaging is challenging to the quality of patient care, because it compromises continuity of care. Continuity of care is especially important because it supports prompt and efficient diagnosis and treatment of identified conditions and can effectively decrease hospitalization as well as morbidity and mortality of the aging population.³⁰ Keeping imaging services local, within Atrius Health's ambulatory practice, will ensure patients have timely access to these services and optimize care coordination and continuity of care.

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 have a significant positive impact for the Plymouth Practice Patient Panel with respect to access to care, health care costs, health outcomes, and quality of life.

Approval of the Proposed Project will allow for the advanced imaging modalities of CT and MRI to be readily accessible to the Plymouth Practice Patient Panel within Atrius Health's system of care. PMG patients needing CT and MRI currently need to be referred to a local hospital service or travel outside the greater Plymouth area for testing. Providing a local, in-house option for CT and MRI services increases the likelihood that patients will obtain medically necessary imaging in a timely manner, facilitating early diagnosis and treatment. In addition, all CT and MRI examinations ordered at Atrius Health undergo a clinical review of the order prior to imaging, to ensure appropriateness of the exam and to provide guidance as to how the exam is clinically performed. Exam protocols are individually determined, in conjunction with a review of relevant portions of the patient's electronic medical record and in the context of prior imaging exams. Use of a single, integrated EMR speeds access to imaging results and supports communication among a patient's treating providers. The integration of these imaging services into the Plymouth Practice and the care delivery system there, supported by

²⁶ [NCD - Lung Cancer Screening with Low Dose Computed Tomography \(LDCT\) \(210.14\) \(cms.gov\)](https://www.cms.gov/medicare/coverage/guidelines/screening-lung-cancer/screentest-ldct)

²⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8280577/>

²⁸ <https://ascopost.com/news/december-2021/effect-of-the-covid-19-pandemic-on-cancer-imaging/>

²⁹ <https://bmccgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1197-9#Sec21>

³⁰ <https://bmccgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1197-9#Sec21>

the EMR, will significantly enhance the coordination and continuity of care, improving the quality of care and patient outcomes.

Based on Atrius' experience, local hospitals are struggling to provide adequate access to imaging due to resource constraints and pent-up demand resulting from the COVID-19 pandemic. In addition, when patients seek imaging exams at a hospital on an outpatient, non-emergency basis, their care can be delayed or even deferred when the imaging needs of emergency department patients and inpatients exceed capacity. In an outpatient setting like the Plymouth Practice, such delays very rarely occur because there are not the same emergent circumstances which compete for imaging services as there are in a hospital setting. Moreover, patients will benefit from the convenience of receiving imaging services in an outpatient location which does not require them to navigate a hospital patient registration system, hospital parking, or travel distances to or within the hospital itself. This can be a burden particularly for elderly or chronically ill patients who are most likely to need advanced imaging. Improving patient satisfaction and convenience are expected to drive improved compliance with imaging orders, and thus improve health outcomes.

It can be challenging to ensure timely communication of important abnormal results, including incidental findings like pulmonary nodules that may represent early lung cancers, from a hospital-based radiology department to providers who use a different EMR, despite advances in EMR interoperability. Atrius Health's team of dedicated primary care focused radiologists greatly improve care coordination for patients as discussed in the Project Description. All of Atrius Health's imaging is integrated in the electronic medical record via a link to the PACs system. Full integration of primary care, specialty, and radiology providers across Atrius Health practices, including the Plymouth Practice, facilitates effective, timely communication between providers and more comprehensive diagnostic reports, promoting early diagnosis and treatment to improve health outcomes and quality of life.

Several metrics will be monitored regularly to assess the impact of the Proposed Project:

- 1. Turnaround Time (TAT):** Radiology reports are typically available in the patient's medical record, through the patient portal, and to the ordering provider the day the exam is completed. Atrius Health radiology leadership closely monitors TAT, including urgent requests (STAT), for CT and MRI and will continue to do so for services provided at the Plymouth Practice.
 - a. **Measure:** TAT is measured from the time the exam is completed to the time the interpretation is finalized for all imaging services provided at Atrius Health including MRI and CT.
 - b. **Projections:** For STAT exams: Reporting is expected within one hour. For Routine exams: Reporting is expected within 48 hours. In YTD 2022, 99.34% of all CT exams and 98.67% of all MRI exams are reported within their expected applicable TAT. TAT for CT and MRI at the Plymouth Practice are expected to meet or exceed these performance thresholds.
 - c. **Monitoring:** Plymouth Practice performance will be monitored like all other Atrius Health imaging: TAT for CT and MRI exams are compiled and reviewed monthly by radiology leadership. All exams that do not meet the reporting TAT standard are reviewed to determine the cause of the delay. Improvement measures will be implemented by radiology leadership if a problem is identified.
- 2. Quality Assurance (QA):** Atrius Health has an intensive imaging QA program, facilitated by the provision of direct technical feedback by radiologists. Radiologists can dictate comments on any technical imaging issues. Comments for each imaging modality are reviewed monthly by the

radiology services management team which is made up of regional managers. The feedback drives improvement in exam quality across Atrius Health. This imaging QA program will include the new Plymouth Practice CT and MRI scans. Currently, fewer than 1% of all imaging studies are identified as having QA issues requiring repeat imaging; Atrius Health will closely monitor the exams at the Plymouth Practice, particularly in the first year, to ensure that similar or better quality is achieved.

- a. **Measure:** Percentage of non-diagnostic exams requiring repeat imaging.
- b. **Projections:** Currently there is no baseline for the Plymouth Practice. Overall, across all imaging modalities at Atrius Health practices, the incidence of negative technical feedback and the need for a repeat exam is less than 1% for each modality. The incidence of repeat imaging for Plymouth Practice is projected to be consistent with this threshold.
- c. **Monitoring:** QA comments and the repeat rate (need for repeat imaging) will be evaluated monthly and action taken on any improvement measures identified, including the basis for any required repeat imaging.

3. Patient Experience/Satisfaction: Patient satisfaction and positive patient experience help to ensure patient compliance with imaging orders.

- a. **Measure:** Patient satisfaction is reported monthly for radiology services including CT and MRI based on Press Ganey survey responses.
- b. **Projections:** Radiology Department Baseline: 2021 - 82.4% “very good”; Projections for the Radiology Department for the 2022 and 2023 are 83% “very good” and for the following three years: 2024—83%; 2025—85%; 2026—85%. Plymouth Practice patient satisfaction with MRI and CT is expected to be consistent with these projections.
- c. **Monitoring:** Patient satisfaction scores by practice location are monitored and evaluated monthly by the Atrius Health Department of Quality, Safety, and Patient Experience, and reviewed monthly by the Radiology Regional Service Line Managers. If monthly trending shows a decline, the practice and staff will be evaluated by Radiology Regional Service Line Managers and improvement measures will be implemented as needed.

4. Access: Access to advanced imaging is currently monitored for each practice that provides CT and MRI imaging services. The Proposed Project seeks to ensure timely access for CT and MRI exams for the Plymouth Practice Patient Panel at the Plymouth Practice.

- a. **Measure:** Wait time for first available appointment from when the order was placed.
- b. **Projections:** Currently there is no baseline for the Plymouth Practice. Current average access for CT at other Atrius Health locations is same day/next day for first available appointment; access for MRI services at other Atrius Health locations for urgent and emergent exams is same day/next day, access for routine exams is within 10 -14 days. Access in the Plymouth Practice Patient Panel for CT and MRI would be improved based on increased capacity associated with the planned service days and projected volume.
- c. **Monitoring:** The Plymouth Practice wait times will be added to Atrius Health standard reporting data when services become operational and will be monitored monthly by Radiology Regional Service Line Managers. Service adjustments will be made if there are access constraints, as indicated by persistent increases in wait times for first available appointments from when the order was placed.

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.

Atrius Health is an HPC-certified ACO driven to improve the health and wellness of the population of the Commonwealth by providing high-quality, coordinated care for patients across Eastern Massachusetts. Atrius Health is committed to serving a diverse patient population and strives to address the needs of individuals who may be at particular risk for poor health as a result of social and other conditions. Atrius Health prides itself on delivering a model of care that is focused on the individual, regardless of payer source or ability to pay. Atrius Health accepts most insurance plans and works with patients who have difficulty paying for care. Atrius Health has always participated in Medicaid (MassHealth) and currently participates as the ACO Partner in the MassHealth ACO plan, Tufts Health Together with Atrius Health, serving some of the Commonwealth's most vulnerable populations. Atrius Health participates in Medicare alternative payment models, such as the Medicare Shared Savings Program and Primary Care First, the aims of which include improving access to, and coordinating care for, Medicare beneficiaries.

The Proposed Project will contribute to Atrius Health's efforts to improve access to care for underserved populations by making MRI and CT services more accessible at a lower cost to the Plymouth Practice Patient Panel and surrounding communities. The HPC has shared findings from an analysis of the CHIA 2019 Massachusetts Health Insurance Survey, indicating that among Massachusetts commercially insured patients with lower incomes, 59% had trouble accessing care due to cost. The HPC has also found that lower-income residents disproportionately forgo needed care.³¹ Reducing the cost of care, including for advanced imaging, can be incredibly meaningful for families with significant cost-sharing as part of their health insurance plans. Because the Proposed Project will improve affordability for lower-income residents by offering imaging services at lower cost than hospital-based imaging - which will reduce out-of-pocket expenses for patients with cost-sharing obligations for these services- it will help address inequities in access and cost of care. In addition, for some patients and families, offering imaging services near their primary care or specialty providers permits patients to coordinate visits, reducing drive time and associated expenses such as time away from work and costs of child and elder care, which may meaningfully impact lower-income families.

As a result of how Atrius Health radiologists practice, utilizing the patients full medical record and appropriate, pertinent prior imaging, and as described in F1.b. ii, patients are often able to forgo incidental follow-up studies, allowing patients to avoid the incremental costs associated with subsequent imaging. Atrius Health has documented in its radiology e-consult program that nearly 50% of follow up CTs and MRIs recommended by external imaging facilities can be cancelled based on a more comprehensive review of the patient's medical record and prior imaging. Having Atrius Health radiologists interpret CT and MRI exams for the Plymouth Practice Patient Panel is expected to significantly decrease unnecessary imaging utilization and cost. The Plymouth Practice Patient Panel includes a large MassHealth population who do not currently have convenient access to Atrius Health's primary care focused advanced imaging services, and the attendant benefits described earlier, because

³¹ Massachusetts Health Policy Commission, 2021 Cost Trends Report, pp. 18-19.
<https://www.mass.gov/doc/2021-health-care-cost-trends-report/download>

the closest Atrius Health service is at least 30 minutes away. The Proposed Project would provide access to these services for this segment of the Atrius Health MassHealth population (and, additionally, support efforts to manage MassHealth ACO medical expense trends).

Atrius Health respects and honors the cultural differences among its patient panel and staff. Atrius Health has a robust DEI (diversity, equity and inclusion) program, which provides training to staff on cultural and socioeconomic differences as part of an effort to help address any disparities and inequities in patient care. Atrius Health also provides interpreter services for 240 spoken languages for patients in their preferred language as well as American Sign Language. The Radiology Services leadership is culturally diverse and the staff performing the CT and MRI imaging provide respectful, compassionate, and empathetic care to all patients consistent with Atrius Health policy and its DEI program. The Atrius Health Health Equity Steering Committee is charged with monitoring health disparities and establishing plans to reduce inequities, improving equitable access to services for all Atrius Health patients. The scope of the Health Equity Steering Committee is broad and includes ancillary and imaging services, including those imaging services to be provided under the Proposed Project.

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

The Proposed Project will improve health outcomes and quality of life for the Plymouth Practice Patient Panel by providing increased access to high-quality, low-cost CT and MRI imaging services with increased care coordination. As discussed in the Project Description, Atrius Health participates in a high percentage of risk-based contracts. These arrangements foster positive health outcomes by incentivizing Atrius Health to keep patients healthy, detect medical issues early and coordinate care to prevent gaps and delays in care. In addition, the interpretation of the CT and MRI exams is done internally by a team of primary care focused radiologists who have full access to patients' complete medical records. Because the ordering provider and interpreting physician are linked by communication tools within the medical record, the results are immediately available to the ordering provider after interpretation. Excellent care coordination defragments patient care and is well documented to improve health outcomes.

The response to Factor F1.b.iii above describes the expected improvements in quality of life resulting from the Proposed Project, including reduced out-of-pocket expenses for those with cost sharing obligations for needed studies, and reduced patient time off work, child and elder care expenses, and travel time and expense associated with fewer repeat studies. The response to F1.b.iii summarizes Atrius Health's approach to health equity, including the Health Equity Steering Committee's oversight of all Atrius Health services including imaging.

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 allow for the Plymouth Practice Patient Panel to receive CT and MRI services within Atrius Health's system of care, where the imaging reports are integrated into the patient's medical record and immediately accessible by the patient's Atrius Health primary care provider and other Atrius Health clinicians. The integrated record facilitates the delivery of efficient and effective care by ensuring that radiology staff and physicians have access to pertinent medical history and that

the patient's Atrius Health primary and specialty (as applicable) care teams have timely access to results, as well as to each other and the radiologists, facilitating diagnosis and treatment. Co-location of these services within the Plymouth Practice also will improve efficiency and continuity and coordination of care for the Patient Panel by easing coordination of visits to multiple providers.

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 following individuals and agencies have been consulted:

- Rebecca Rodman, General Counsel, Department of Public Health
- Rodrigo Monterrey, Acting Director, Office of Health Equity
- Elizabeth D. Kelley, Former Acting Director, Determination of Need Program, Current Director, Bureau of Health Care Safety and Quality
- Dennis Renaud, Director, Determination of Need Program
- Jennica Allen, Division of Community Health Planning and Engagement Specialist
- Katelyn Teague, Division of Community Health Planning and Engagement Specialist

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.

In considering whether to place a CT and mobile MRI at the new Plymouth Practice, Atrius Health evaluated current utilization data for the Plymouth Practice Patient Panel, as discussed in the Project Description and Factors F1.a.i and F1.a.ii. PMG physicians were also consulted and commented that having internal CT and MRI services would greatly improve quality of care due to better care coordination and timely access to imaging results.

Atrius Health solicited feedback on the Proposed Project from a representative group of volunteers of the Plymouth Patient Panel through a virtual focus group conducted on August 3, 2022, via Zoom. The presentation included an overview of the new building and the proposed new CT and MRI service offerings, and a discussion of the implications for patients of having CT and MRI services provided locally and internally to Atrius Health, including improved coordination of care and access to high quality, low-cost CT and MRI imaging services.

Atrius Health sent a random sample of 500 patients from the Plymouth Practice Patient Panel email invitations for the focus group. Thirteen (13) patients responded and volunteered to participate in the focus group; of these, seven (7) patients attended the presentation and participated in the discussion. Patients were interested in the types of imaging services that would be available at the Plymouth Practice, as well as what other specialty services would be available and the timeframe for the opening.

The patients in attendance were enthusiastic about the Proposed Project.

The panel was hosted by:

- Dr. Rebecca Schwartz, Executive Chair, Ancillary Services, Chief Radiology
- Dr. David Grace, Chief, PMG Internal Medicine
- Karen Craft, Senior Director, Radiology Services

- John Clark, Senior Director, Real Estate

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

As described above, Atrius Health met with members of the Plymouth Practice Patient Panel on August 3, 2022, to present the Proposed Project and obtain feedback. The Public Health Value of the Proposed Project was discussed in the presentation with particular emphasis on improved coordination of care and access to high-quality, low-cost advanced imaging services including CT and MRI. Patients voiced their enthusiasm for having a local option for advanced imaging that did not require them to travel long distances or obtain care in a hospital system where their own specialists would have difficulty accessing images.

Feedback from the patients in attendance, as discussed in F1.e.i, was positive; the participants indicated that they believed the new services would be of added value to the community. The patients in attendance were enthusiastic about the Proposed Project and their feedback included the following comments: "sounds like improvements" and "this sounds amazing!" One patient emailed following the presentation to say, "Looking forward to your new facility! Everything under one roof" [referring to CT and MRI services]. A copy of the presentation is attached as Exhibit 1.1.

Factor 2: Health Priorities

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.

As discussed in the Project Description, the Proposed Project will contribute directly and meaningfully to the Commonwealth's cost containment goals by improving availability and accessibility of lower cost MRI and CT services as an alternative to higher cost, hospital-based services. Atrius Health has already established its strength in managing TME (adjusted and unadjusted) and minimizing the use of low-value services.³² The Proposed Project will help ensure that Atrius Health continues to deliver timely, connected and coordinated care to its patients, facilitated by its integrated EMR.

Atrius Health's delivery model is focused on providing high quality care in a cost-efficient manner. Atrius Health utilizes several tools within the EMR to promote the appropriate use of medical imaging, including CT and MRI. CT and MRI orders are reviewed for appropriateness and need prior to the patient's being seen. Requisitions are reviewed in the context of the patient's history (as documented in their medical record), any prior imaging (including external imaging), and whether the exam is the most appropriate for the patient for the clinical indications. Together, these features and functions improve the efficiency of care delivery.

³² <https://www.mass.gov/doc/presentation-board-meeting-june-8-2022/download> SLIDE 27

The Proposed Project will further contribute to lowering TME for the Plymouth Practice Patient Panel. Over 45% of the Plymouth Practice Patient Panel is enrolled in health plan products for which Atrius Health is at risk, meaning that Atrius Health assumes most- if not all – of the financial responsibility for the costs of care delivered to the patient. By providing the services in-house, Atrius Health saves money for the consumer and the Commonwealth by ensuring the care is coordinated for every patient and by delivering these services at a lower cost than other providers, such as hospitals.

In addition, Atrius Health has elected to maximize the use of its existing mobile MRI contract, thus avoiding additional capital equipment expense. Furthermore, Atrius Health's selection of CT equipment for the Proposed Project reflects the minimum requirements for an outpatient practice, rather than a higher end, more expensive unit that might be more appropriate for a hospital with intensive care needs.

F2.b Public Health Outcomes: Describe, as relevant, for each new or expanded service, how the Proposed Project will improve public health outcomes.

The Proposed Project will improve public health outcomes by improving access to high quality, low-cost CT and MRI services, thereby improving speed of diagnosis and treatment. As stated in Factor F.1.a.ii, CT and MRI are critical to properly diagnosing and planning treatment for many common health conditions, including cancer, cardiovascular disease, pulmonary conditions, and arthritis. The COVID-19 pandemic has constrained access to advanced imaging services, negatively impacting public health. Adding a resource of CT and MRI services in an outpatient setting will make these critical services more broadly and conveniently available. In addition, making these services available at the Plymouth Practice, and thus integrating these services into Atrius Health's delivery system, will result in improvements in both continuity and coordination of care, with attendant improvements in health outcomes for the Plymouth Practice Patient Panel.

The Proposed Project will allow for Plymouth Practice Patient Panel to have CT exams completed the same day they are ordered, and MRI exams completed within a week with full integration within the Atrius Health EMR and immediately available to the ordering provider. In the event there is a "critical result" Atrius Health Radiologists immediately direct message the ordering provider through the EMR.

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.

Atrius Health delivers an effective system of connected care for adult and pediatric patients at more than 30 medical practice locations in eastern Massachusetts. Atrius Health aims to provide consistently culturally competent care to its entire patient population. Atrius Health's emphasis on diversity, equity, and inclusion guides major decisions made by the organization. Atrius Health patients speak dozens of languages; interpreter services, both in person and via an iPad app, are available to make sure that patients fully understand imaging procedures and other components of their care plans.

Atrius Health routinely screens for social determinants of health in its pediatric and adult populations and helps connect patients to internal and external resources (e.g., social work; community services) to support identified vulnerabilities and needs, including but not limited to those specific to an aging population. The efforts will be integrated into the Proposed Project.

In addition, Atrius Health is in the early stages of an IT and operational project to develop the necessary fields and capabilities to capture race and ethnicity data more accurately and in greater detail to help better identify and address disparities.

Atrius Health trains staff regularly to fully respect patients of all cultural, racial, and ethnic backgrounds. In addition to trainings, Atrius Health offers DEI resources on its Intranet, available to all staff. Additionally, in 2023 all patient-facing staff will complete implicit bias training.

Factor 5: Relative Merit

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

Proposal:

The Proposed Project is to provide advanced imaging modalities with a fixed/installed scanner to provide CT and two days of service of a mobile MRI at the Plymouth Practice described in Factor 1.a.i.

Quality:

The Proposed Project will result in improved health outcomes and quality of life as the care coordination is greatly improved by keeping services internally as discussed in Factor 1.b.ii. Quality of service will be held to the same metrics as Atrius Health's other practices which provide CT and/or MRI services and will be monitored for image quality and TAT as discussed in Factor F1.b.ii.

Efficiency:

The Proposed Project will improve the efficiency of obtaining CT and MRI imaging services for the Plymouth Practice Patient Panel because the services will be available within the Atrius Health system of care. Images will be available to the ordering provider immediately after acquisition and the report will typically be available on the same day. Both the images and the report are integrated directly in the patient's medical record. Plymouth Practice patients will have the convenience of "one stop shopping" for care when they can coordinate provider visits and imaging appointments. Patients will no longer need to travel to a hospital or other outside facility for imaging services and bear the inconvenience and stress of parking, walking, and navigating unfamiliar facilities. This would be a particularly important improvement for the elderly population.

Capital Expense:

Because Atrius Health is an ambulatory practice, the installed CT equipment will be that which is sufficient and is appropriate for routine imaging needs. This equipment can be purchased at a lower price point than a scanner that might be needed in a setting that also provides emergent and high acuity care services. The expected cost of the CT scanner is \$561,120. Atrius Health currently leases a mobile MRI coach on a monthly basis. This unit is only utilized five days per week. The cost of utilizing this scanner for an additional two days/week is limited to operational costs, including the transport costs of the coach, staff to operate the scanner at the Plymouth Practice, and minor supply costs. There is no incremental capital equipment cost. The estimated capital cost to construct the space for the CT

scanner at the Plymouth Practice is \$266,500; the estimated capital cost for constructing the MRI vestibule is \$111,500.

Operating Costs:

The cost to Atrius Health will be lower to provide the services internally than to send the patients to the local hospital provider or other external imaging services provider.

Alternative options:

Alternative Proposal 1:

Do not acquire CT or expand days of mobile MRI to extend MRI services to the Plymouth Practice and continue to utilize external providers for CT and MRI imaging for the Plymouth Practice Patient Panel.

Alternative Quality 1:

Continuity of care and care coordination are significantly decreased when these services are provided by external providers because there is a delay in Atrius Health's receipt of images and reports.

In addition, image and service quality are dependent on outside factors over which Atrius Health has no control and limited ability to monitor.

Alternative Efficiency 1:

The efficiency of care is decreased when utilizing outside providers, particularly when Atrius Health is trying to improve efficiencies in service delivery generally through consolidation of the 6 PMG practices at the Plymouth Practice.

Alternative Capital Expense 1:

The capital expense would be \$0.

Alternative Operating Costs 1:

Operating costs will be higher relative to the Proposed Project as the expense to the organization to utilize outside service providers is greater than the cost to provide the same services internally. In addition, there are costs associated with recommendations for often unnecessary follow up imaging made by outside imaging providers because they don't have seamless access to the Atrius Health EMR and the patient's medical history, including history of prior imaging studies. Atrius Health has documented in its radiology e-consult program that nearly 50% of follow up CTs and MRIs recommended by external imaging facilities are not clinically indicated and can be cancelled based on the more comprehensive review of the patient's medical record and prior imaging that is a standard part of practice for Atrius Health's radiologists. Therefore, having Atrius radiologists interpret CT and MRI exams for Atrius Plymouth patients is expected to significantly decrease unnecessary imaging utilization and cost.

Alternative Proposal 2:

A second alternative proposal would be to install both a fixed CT scanner and a fixed MRI scanner.

Alternative Quality 2:

The level of quality for alternative 2 is the same as the Proposed Project.

Alternative Efficiency 2:

The level of efficiency for alternative 2 is the same as the Proposed Project.

Alternative Capital Expense 2:

Alternative Capital Expense 2 would be greater because this option would require the purchase or lease of an additional MRI scanner in addition to construction to house the fixed scanner. Because Atrius Health has two days of service available on an MRI scanner that is currently leased on a monthly basis, there is no additional capital expense relative to that equipment. The Proposed Project is the better option.

Alternative Operating Costs 2:

Operating costs for Alternative 2 are lower than for Alternative 1 and the same as for the Proposed Project.

- F5.a.ii 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.**

The Proposed Project was chosen as the best alternative to meet the needs of the Plymouth Practice Patient Panel. Quality and efficiency of care will be improved, and capital expense and operating costs will be kept to a minimum under the implementation of the Proposed Project; it is also the least costly alternative. The Proposed Project will improve local access to CT and MRI imaging services, provide better care coordination for patients and providers, and reduce costs associated with use of hospital-based service.