Partners HealthCare System – Mass General Physician's Organization
DoN # PHS-19093011-HS
Applicant Responses

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1. In order to assess Patient Panel need, we require more information about the Applicant Patient Panel needs as well as those seeking care at Assembly Row.

a. We understand that 19% of MGH/MGPO MRI patients reside in proximity to Assembly Square and on the Orange line (which extends quite a long distance, 33 miles from Oak Grove in the north to Forest Hills to the south), provide a rationale as to why this geographically diverse group will travel to Somerville.

Nearly 19% of the Massachusetts General Hospital ("MGH")/Massachusetts General Physicians Organization ("MGPO") MRI patient panel originates either within a 4-mile radius of Somerville and/or along the MBTA Orange Line. Further breaking this percentage down, the data indicates that greater than 18% of MGH/MGPO's MRI patients live within 4 miles of Somerville. With regard to these MGH/MGPO patients that live within a 4-mile radius of Somerville, the Applicant anticipates that the proposed MGPO Assembly Row MRI imaging clinic will be the most convenient option for many of these patients to receive MRI services. Specifically, the proposed location is conveniently located off of Interstate 93 in Somerville and will offer free parking. For many patients, this will reduce the stress of commuting into Boston for care. Overall, MGPO Assembly Row will serve as an alternative point of access for patients to receive services close to home in an ambulatory care setting with equally high-quality at a lower-cost.

In terms of the MBTA Orange Line, the Applicant wishes to highlight a few points of clarification. First, please note that the 4-mile radius includes several MBTA Orange Line stations (e.g., Oak Grove). To this point, of the total 19% of MGPO/MRI patients discussed above, less than 1% of patients live outside of the 4-mile radius in zip codes that are convenient to the MBTA Orange Line (e.g., Forest Hills, 02130). The Applicant makes this point of clarification to explain that most patients within the 19% subgroup are not as geographically diverse as may appear.

With regard to the 1% of patients that live within zip codes along the MBTA Orange Line that are outside of the 4-mile radius, the Applicant emphasizes that the proposed MGPO Assembly Row site is nonetheless still convenient for these patients. The proposed site is highly accessible by public transit, as it is located at an easily navigable location directly along the MBTA Orange Line. Therefore, patients originating from zip codes along the MBTA Orange Line (whether within or outside of the 4-mile radius) can easily hop on the MBTA Orange Line and travel to MGPO Assembly Row without needing to switch lines along the way or find additional means of transportation once they arrive at the Assembly Row station in order to get to the MGPO Assembly Row site.

Finally, the Applicant notes that the cumulative distance between Oak Grove in the north to Forest Hills in the south is approximately 11-12 miles when measured along the MBTA track itself. Measured this same way, the furthest station to the south – Forest Hills – is approximately 9 miles from the Assembly Row station. This is an important point of clarification as the Applicant anticipates that MGH/MGPO MRI patients originating from zip codes along the MBTA Orange Line, and particularly those outside of the 4-mile radius, will utilize the subway to reach the proposed MGPO Assembly Row site rather than travel by car or any other means of transportation (which would involve additional mileage and time). Given the convenience of traveling along the MBTA Orange Line and the benefits of receiving care in an ambulatory setting, the Applicant anticipates that those MGH/MGPO patients that live zip codes along the MBTA Orange Line outside of the 4-mile radius will travel to MGPO Assembly Row to receive MRI services.

b. From which zip codes do you anticipate 80% of patients for this new site will come from, and on what data you base this estimate?

The Applicant anticipates that 80% of patients for the new site will come from zip codes within 2-3 miles of Somerville. This estimate is based on MGH/MGPO MRI patient panel geographic origin data and the fact that patients generally elect to receive care close to home. Please refer to the table below for additional detail on these zip codes:

Zip Code	City/Town
02145	Somerville
02143	Somerville
02141	Cambridge
02144	Somerville
02129	Charlestown
02153	Medford
02238	Cambridge
02139	Cambridge
02142	Cambridge
02140	Cambridge
02138	Cambridge
02222	Boston
02149	Everett
02163	Boston
02114	Boston
02133	Boston
02155	Medford
02113	Boston
02203	Boston
02108	Boston

Zip Code	City/Town
02109	Boston
02137	Boston
02123	Boston
02117	Boston
02112	Boston
02297	`Boston
02293	Boston
02284	Boston
02266	Boston
02241	Boston
02217	Boston
02211	Boston
02206	Boston
02283	Boston
02196	Boston
02201	Boston
02204	Boston
02116	Boston
02134	Allston

2. Payer Mix

a. Please complete the table below in <u>the format provided</u> for MGPO and Partners for the most recent Fiscal Year.

<u>Partners HealthCare</u>

Please refer to the table and related narrative below for the payer mix percentages for the Partners HealthCare System ("Partners HealthCare" or "the Applicant") patient panel for the

most recent Fiscal Year ("FY").

Partners HealthCare			
APM Contract Percentages (For any system-affiliated Primary Care Physicians)		**Payer Mix-List Percentages FY18 (Must = 100%)[1]**	
ACO and APM Contracts	Please see narrative below.	Commercial	59.2%
		PPO/Indemnity	*36.7%*
		HMO/POS	*22.5%*
		MassHealth	3.5%
Non-ACO and Non-APM Contracts		Managed Medicaid	5.5%
		Commercial Medicare	4.4%
		Medicare FFS	23.2%
		All other	4.2%

With regard to APM contract percentages, the percentage of Partners HealthCare's primary care lives covered in risk contracts is 57.9%.[2] This percentage is derived from the number of **primary care lives** within the patient panels of the Partners HealthCare primary care physicians ("PCP") that are covered under risk contracts (Partners HealthCare bears the risk). This data **does not include** referral patients as such patients are not managed by a Partners HealthCare PCP and are not included in Partners HealthCare' risk contracts.

Of note, the data used to determine the percentage of lives covered in Partners HealthCare's risk contracts differ from the Partners HealthCare patient panel data that is included in the DoN narrative as the risk contract data is based on primary care lives; whereas patient panel data is a standard report of all of Partners HealthCare's patients that received care over the last three fiscal years from one of the five Partners HealthCare acute care hospitals and or hospital physicians, including referral patients.

Moreover, in regard to the methodology for collecting system-wide patient panel data, as well as data associated with primary care lives, this process is evolving at Partners HealthCare, particularly with the system-wide adoption of Epic (Partners HealthCare's electronic health record system). Previously, each regional service organization ("RSO") would have to manually pull the data in order to calculate a system wide total of primary care lives. The implementation of Epic has changed the manual process of data extraction, allowing for a more centralized and standardized way of obtaining aggregate data.

[1] Please note the following regarding the Partners HealthCare data: (1) Reflects aggregate Partners HealthCare revenue for the 2019 Cost Hearing Submissions for P4P Contracts, Risk Contracts, FFS Arrangements and Other Revenue; (2) Data includes MGH, BWH, NSMC, NWH, BWFH, MGPO, BWPO, NSPG & NWMG. Payer specific information for other PHS providers (McLean, Spaulding Network, MVH, and NCH) is not available; and (3) Revenue based on payments minus denials, bad debt, free care surcharge, and uncompensated care assessment.

[2] The number of risk members is for CY 2019 and includes members from the following risk contracts: Medicare Shared Savings Program (MSSP), BCBS AQC and BCBS PPO, HPHC, TAHP, AllWays Commercial, and Medicaid ACO. The total number of patients within a PCP's panel are for FY 2017 adult and pediatric patients.

Currently, there are some Partners HealthCare affiliates that are not on Epic and some RSOs have just converted to Epic; typically, it takes approximately one year for the Epic data to be "clean." Given that there are some gaps in the Epic data and that some RSOs are still ramping up on the system, **historical FY17 primary care covered lives data** is being used for this calculation. Accordingly, as Partners HealthCare's staff develop additional data and methods for providing this information, the percentage may change.

In regard to non-ACO and/or non-managed care contracts, Partners HealthCare staff are working on how best to provide this information. From a Partners HealthCare primary care perspective, all lives are managed by a PCP, leading to no non-managed lives. However, if "non-managed lives" are defined as primary care lives that are in external risk contracts, there are numerous factors to consider when developing this calculation and Partners HealthCare staff are working through how this information may be reported to the Department of Public Health ("Department"). Although it would seem an inverse calculation of the ACO/managed care contracts could be conducted to provide this data point, there are other factors that require additional consideration.

MGPO

Please refer to the table and related narrative below for the APM contract percentages and payer mix percentages for the MGPO patient panel for FY18.

MGPO			
APM Contract Percentages (For any system-affiliated Primary Care Physicians)		**Payer Mix-List Percentages (Must = 100%)**	
ACO and APM Contracts	71.6%	Commercial	53.6%
		MassHealth	2.4%
		Managed Medicaid	15.6%
Non-ACO and Non-APM Contracts	Please see narrative below.	Commercial Medicare	4.6%
		Medicare FFS	20.6%
		All other	3.1%

Similar to above, although the non-ACO/non-APM contract percentage would seem an inverse calculation of the ACO/APM contract percentage, there are other factors that require additional consideration. The Applicant/MGPO's staff are working through how this information may be reported to the Department.

b. Based on the anticipated demographics of the proposed service, please estimate and complete the table below in the format provided for MGPO Assembly Row for the most recent Fiscal Year.

Please refer to the table and related narrative below for the estimated APM contract percentages and payer mix percentages for MGPO Assembly Row. Please note that the estimates provided are based on the anticipated demographics of the proposed service area.

MGPO Assembly Row			
APM Contract Percentages (For any system-affiliated Primary Care Physicians)		**Payer Mix-List Percentages (Must = 100%)**	
ACO and APM Contracts	74.3%	Commercial	52.1%
		MassHealth	1.2%
		Managed Medicaid	9.7%
Non-ACO and Non-APM Contracts	Please see narrative below.	Commercial Medicare	5.2%
		Medicare FFS	27.8%
		All other	3.9%

Once again, although the non-ACO/non-APM contract percentage would seem an inverse calculation of the ACO/APM contract percentage, there are other factors that require additional consideration. The Applicant/MGPO's staff are working through how this information may be reported to the Department for MGPO Assembly Row.

3. In order to better understand Patient Panel need, while you provide the ten most common CPT codes of MRI's ordered by MGH/MGPO, we still need additional information. Provide a list that includes the volume for each of those codes for MGH/MGPO, identify what each code is for and changes anticipated with the acquisition of the three new units. Use the tables below to answer these questions.

Please refer to the tables below for the requested CPT information for both MGH/MGPO and MGPO Assembly Row.

For MGH / MGPO							
Ten Most Common CPT Code #s	**Definition**	**Number of Scans**			**Scan Projections**		
		2017	**2018**	**2019**	**Year 1**	**Year 2**	**Year 3**
1. 70553	Brain Combo	15,360	16,072	16,617	16,783	16,951	17,121
2. 70551	Brain	7,575	7,868	8,187	8,269	8,352	8,435
3. 74183	Abdomen Combo	5,949	6,426	7,099	7,170	7,242	7,314
4. 72148	Lumbar Spine	5,520	5,776	6,196	6,258	6,321	6,384
5. 73721	Lower Extremity Joint w/o Contrast	5,249	5,325	5,416	5,470	5,525	5,580
6. 72197	Pelvis Combo	3,271	3,885	4,284	4,327	4,370	4,414
7. 70544	Angiography, Head	3,828	3,830	3,961	4,001	4,041	4,081
8. 72141	Cervical Spine	3,250	3,519	3,712	3,749	3,787	3,824
9. 73221	Upper Extremity Joint	2,569	2,676	2,849	2,877	2,906	2,935
10. 72158	Lumber Spine Combo	1,819	1,911	2,045	2,065	2,086	2,107

For Assembly Row			
Ten Most Common CPT Code #s	**Scan Projections**		
	Year 1	**Year 2**	**Year 3**
1. 70553 (Brain Combo)	1,855	2,319	3,340
2. 72148 (Lumbar Spine)	1,285	1,606	2,312
3. 73721 (Lower Extremity Joint w/o Contrast)	981	1,227	1,766
4. 74183 (Abdomen Combo)	841	1,051	1,513
5. 72197 (Pelvis Combo)	724	905	1,304
6. 72141 (Cervical Spine)	555	694	1,000
7. 70551 (Brain)	542	677	975
8. 73221 (Upper Extremity Joint)	534	668	962
9. 72158 (Lumber Spine Combo)	224	281	404
10. 70544 (Angiography, Head)	192	240	345

4. In order to better understand Patient Panel need, we require additional information about the impact of MRI units. You note that Partners has a number of MRI units located in the Boston area, and the Department has approved units at MGH, BWH, MGPO- Waltham and NWH over the past 3-4 years. In Table 3 you provide data from MGH/MGPO on the patient demographic make-up of those receiving MRI scans at your sites. While you cite the need for imaging services close to home, and the MGH/MGPO growth in MRI scans over the past 3 years, explain:

a. How this proposed expanded capacity at this location will reduce usage of other MRIs in the system;

The Applicant anticipates that the proposed expanded capacity at MGPO Assembly Row will have the biggest effect on usage of MRIs at MGH. MGH experiences high demand for MRI services, as evidenced by the long wait times for MRI appointments noted in Question #6. As discussed in the DoN narrative, by providing access to MRI services at MGPO Assembly Row, the Applicant will be able to shift appropriate patients out of the hospital setting to the lower-cost community-based ambulatory care setting. Specifically, by shifting appropriate MRI imaging patients to a lower-cost setting in the community, the Applicant hopes to reduce wait times and free up imaging resources at MGH for critical patients that require quick access to care in a hospital setting.

In terms of MGPO's other locations, the Applicant anticipates that the Proposed Project will allow MGH/MGPO to more effectively manage utilization and resources across its imaging locations. The new location will serve as an additional setting for patients within MGPO Assembly Row's service area to seek MRI services. While this service area is distinct from the MGPO Waltham and MGPO Chelsea service areas, patients in border cities/towns that currently receive services at MGPO Waltham and MGPO Chelsea may choose to seek MRI services at MGPO Assembly Row (e.g., due to wait times, preference, convenience, etc.). This would ultimately result a shift in patient volumes and wait times among the three locations but not an overall change in volume or wait times across the three locations. The Applicant notes,

however, that both MGPO Waltham and MGPO Chelsea offer other co-located services and, accordingly, that many of the patients currently receiving imaging services at these locations will likely choose to continue to receive their care there to take advantage of the care coordination and convenience benefits.

Finally, outside of MGH/MGPO, the Applicant does not anticipate that the proposed expanded capacity at MGPO Assembly Row will have a significant effect on usage of other MRIs in the system. As noted above, MGPO Assembly Row's service area is distinct from other locations in the system (e.g., as outlined in Question #1, it is anticipated that 80% of patients for the new MGPO Assembly Row site will come from zip codes within 2-3 miles of Somerville). To this point, the Applicant anticipates that the Proposed Project will allow patients in this area the convenience of receiving care in a setting closer to their homes without the added stress of a far or traffic-ridden commute. These arguments apply in the reverse as well. For instance, a patient from Newton is unlikely to travel the additional distance to MGPO Assembly Row when he/she can receive imaging at Newton-Wellesley Hospital and a patient from Brookline is unlikely to travel the additional distance to MGPO Assembly Row when he/she can receive imaging at Brigham and Women's Hospital. Of course, patients always have the choice to pursue imaging services at the location they choose and, like noted above, patients in border cities/towns that currently receive services at other system locations may choose to seek MRI services at MGPO Assembly Row. However, if a patient is already receiving care through one system hospital, the patient will likely prefer to continue to receive their care at that location, particularly when taking geographic origin co-location of services into account (e.g., if a patient is already receiving care at Brigham and Women's Hospital/through a Brigham and Women's Physicians Organization imaging location, such patient will likely continue to prefer to receive their care at those locations).

b. To what do you attribute the current demand for MRI in the Assembly Square area as compared to any other region in the Partners system; and

According to projections from the University of Massachusetts' Donahue Institute, it is anticipated that the Commonwealth overall will experience an increase in its 65+ population at a rate that is higher compared to all other age cohorts through 2035.[3] Moreover, the general trend of growth appears consistent across the counties where Partners HealthCare's affiliates are located. As the number of patients that fall into the 65+ age cohort for Partners HealthCare continues to grow, the demand for MRI services is expected to increase as well. Accordingly, the projected increase in the older adult population in tandem with the volume of older adults seeking MRI scans necessitates the need for additional imaging capacity to serve Partners HealthCare patients.

While the increase in the aging population has impacted (and will continue to impact) demand for MRI services across several regions in the Partners HealthCare system, MGH in particular has experienced exceptionally high demand in recent years, as evidenced by historical patient and scan volume trends and long wait times for services despite extended operating hours. In fact, as discussed in Question #6, patients seeking outpatient imaging services at MGH's main campus currently face average wait times of 55 days. This high volume is likely attributable to

[3] UNIVERSITY OF MASSACHUSETTS DONAHUE INSTITUTE, LONG-TERM POPULATION PROJECTIONS FOR MASSACHUSETTS REGIONS AND MUNICIPALITIES 11 (Mar. 2015), *available at* http://pep.donahue-institute.org/downloads/2015/new/UMDI_LongTermPopulationProjectionsReport_2015%2004%20_29.pdf.

the aging population, as well as the wide offering of services available at MGH that MRI technology complements (e.g., MGH's Cancer Center services).

Through the Proposed Project, the Applicant hopes to alleviate these wait times and some of the volume at MGH's main hospital campus. Being that MGPO already has existing imaging clinics in Waltham and Chelsea that operate at high demand, the Applicant looked to site the new location in an area that is both supported by patient panel data (i.e., geographic origin) and is convenient to MGH/MGPO patients. In consideration of these factors, the Applicant determined that Assembly Row was the best location. Specifically, the patient panel data supports this location, as nearly 19% of MGH/MGPO's patients originate close or convenient to Assembly Row. Moreover, the site is easily navigable location along the MBTA Orange Line and off of Interstate 93 in Somerville.

c. How these three new units will affect MGH/MGPO's current volume at other sites.

As discussed in the DoN narrative and above, the Applicant anticipates that the new MGPO Assembly Row MRI units will allow the Applicant to meet the growing demand for MRI services, alleviate some of the volume at MGH's main hospital campus, and ensure that patients have timely access to imaging services that are necessary to detecting and treating a variety of conditions. Specifically, by shifting appropriate MRI imaging patients to a lower-cost setting in the community, the Applicant hopes to reduce wait times and free up imaging resources at MGH for more critical patients that require immediate attention and access to imaging technology in the hospital setting. Please note, however, that demand for MRI services is expected to increase into the future. Specifically, population statistics project that the need for imaging services will increase through 2035 as the 65+ patient cohort grows and requires MRI services to diagnose and treat age-related conditions. Therefore, while the new units will help to alleviate some of the volume at MGH's main hospital campus, it is anticipated that MGH will still face high MRI patient volume into the future.

With regard to MGPO's other imaging locations, the Applicant anticipates that the Proposed Project will allow MGH/MGPO to more effectively manage utilization and resources across its imaging locations. As noted above, MGPO Assembly Row will serve as an additional setting for patients to seek MRI services and patients will have the option to shift their MRI care to MGPO Assembly Row from MGPO Waltham and MGPO Chelsea. The Applicant notes, however, that both MGPO Waltham and MGPO Chelsea offer other co-located services and, accordingly, that many of the patients currently receiving imaging services at these locations will likely choose to continue to receive their care at these locations, particularly if these locations are closer and more convenient. Accordingly, the Applicant does not anticipate that the Proposed Project will have a significant effect on volume at these other sites.

5. From the perspective of coordination and continuity of care, describe any co-located services at Assembly Row and detail overall coordination of care for those receiving MRIs.

As detailed in the DoN narrative, the Proposed Project is limited to the addition of three 3T MRI units to be located at a new MGPO satellite at Assembly Row. While there is an existing Mass General Primary Care location at Assembly Row, this primary care location serves a limited population, specifically, employees of Partners HealthCare, who are part of the patient panel.

This subset of the patient panel will benefit from co-location of primary care and imaging services at Assembly Row.

Aside from co-location, there are numerous other coordination and continuity of care benefits associated with the Proposed Project. First, as discussed in the DoN narrative, patients receiving MRIs at Assembly Row will benefit from integrated medical records. Specifically, all MRI results for tests performed at the MGPO Assembly Row imaging satellite, just like those performed at MGH and MGPO's other satellites, will be seamlessly integrated into the Partners HealthCare electronic health record ("EHR"), Epic.

Epic has embedded in it a picture archiving and communication system ("PACS"), which is a technology for storing, retrieving, and sharing images produced by medical imaging technologies, such as MRI. Because MGPO is the affiliated physician organization of MGH and a member of the Applicant, each patient presenting at MGPO Assembly Row will have a unique Partners HealthCare EHR number, allowing integration of medical information, including imaging results, to the EHR. Research indicates that access to integrated health information technology systems, including PACS information, directly affects health outcomes as access to a single, fully integrated health record improves care coordination by care teams across the primary and specialty fields.[4] With specific regard to the Proposed Project, the availability of these integrated record services will enable imaging results from MGPO Assembly Row to be available to primary care and specialty physicians across Partners HealthCare. For instance, surgeons have access to Epic and, therefore, will be able to access patient MRI images performed at MGPO Assembly Row in their operating rooms. In turn, this will facilitate integrated discussions of patient care between ordering physicians and radiology providers, reduce waste in re-ordered and duplicated exams, lead to improved care and a decrease in system errors, and, overall, and foster team-based care coordination and planning.

Moreover, the Applicant highlights that all MRI scans performed at MGPO Assembly Row will be interpreted by subspecialty radiologists in a subspecialty manner. These experts specialize in interpreting radiology images for specific parts of the body. For instance, if a patient receives a breast MRI at MGPO Assembly Row, that MRI will be interpreted by a subspecialist in breast imaging. Such subspecialty interpretation is advantageous to ordering clinicians, patients, and the system. Referring clinicians rely on subspecialty interpretation to help guide their care, as subspecialty radiologists possess greater experience and increased accuracy compared to generalized radiologists. This in turn leads to improved patient care. Additionally, patients can feel more comfortable knowing that a subspecialist who only interprets the type of imaging they had is evaluating their image.

It is also important to note that many patients, particularly surgical and oncologic patients, require multiple scans overtime for surveillance and follow-up purposes. Having scans performed in the same system is advantageous to facilitate comparison from one study to the next to note improvement or deterioration. Furthermore, it helps to create a seamless care experience for patients. When scans are performed outside of the system, patients are faced with the burden of requesting that CDs of their scans be made and sent to their treating physician. This is often a slow process and also requires the provider receiving the scans to

[4] Isla M. Hains et al., *The impact of PACS on clinician work practices in the intensive care unit: a systematic review of the literature*, 19 J. AMERICAN MED. INFORMATION ASS'N 506 (2012), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3384105/.

then enter them into their own EHR. Given that MGPO Assembly Row will be a part of the Partners HealthCare system and given that scans performed at MGPO Assembly Row will be integrated into the EHR, the Applicant anticipates that the Proposed Project will enable physicians across the system to easily access a patient's complete health information, including radiology reports and scans, and relevant medical history. In turn, this will foster continuity and delivery of timely, quality care.

Finally, the Applicant notes a quality assurance mechanism that will be utilized at MGPO Assembly Row aimed at peer review and coordination, "Grapevine". Grapevine is an online forum for consensus-based peer review of physician work output that allows radiologists to meet online or in person to review randomly selected cases. Grapevine facilitates improved clinical outcomes by enhancing the opportunity to engage in thoughtful and accurate review of cases that may not otherwise be possible due to scheduling and other conflicts.

In sum, utilization of Epic, PACS, subspecialty interpretation and Grapevine will improve care coordination for patients receiving MRIs at MGPO Assembly Row. These systems and mechanisms will ensure that MRIs performed at MGPO Assembly Row will be interpreted by and discussed between highly specialized MGH/MGPO radiologists that are best qualified to do so, regardless of where they are physically located. Moreover, the EHR and PACS system will enable imaging results and interpretations from MGPO Assembly Row to be available to primary care and specialty physicians across Partners HealthCare, who can use the information for diagnosis purposes, to monitor a patient's health status, and to implement timely and appropriate treatment regimes. Overall, this will ensure that patients at MGPO Assembly Row benefit from appropriate care coordination, better outcomes, and improved quality of life.

6. Provide data on current wait times for MRI appointments (see p 18, assessing the impact of the proposed project).

Currently, patients seeking outpatient imaging services at MGH's main campus face average wait times of 55 days (e.g., between 7-8 weeks).[5] As a result, the Applicant has long since implemented hours outside of normal business hours. Some of MGH's magnets operate 24 hours a day and most open their doors at 5:30am, scanning patients from 6am through 11pm. Despite extended operating hours, however, patients seeking outpatient imaging services at MGH's main campus still face long wait times for appointments.

Please note that all MRI scans require an order from a physician who has determined that the scan is medically necessary based on the patient's clinical indications, and that orders for MRIs on MGH/MGPO machines are placed by MGH/MGPO physicians. MGH/MGPO physicians refer imaging patients in this in-system manner to ensure continuity and coordination of care, as discussed in Question #5. Therefore, the wait times for MRI appointments are driven by MGH/MGPO physician orders, which, as discussed in detail in Question #7, require pre-authorization and are informed by clinical decision support tools.

7. In assessing patient health outcomes as well as costs, we note that there are numerous MRI procedures whose "necessity should be questioned and discussed"

[5] Wait times were calculated based on a Monday – Friday schedule between 8am-5pm. The third available appointment time was utilized at the trigger.

by physicians and their patients[6]. Describe any Clinical Decision Support tools or Preauthorization tools in use currently and their effectiveness in curbing unnecessary MRI imaging.

Tools Currently in Use

In terms of pre-authorization tools, the Applicant notes that most private payers require pre-authorization for high cost imaging exams to validate appropriateness, control costs and regulate utilization. MGPO has robust systems in place to ensure MRI exams have pre-authorization approval from payers prior to performing imaging. These existing systems will be applied to scans on the proposed MRI units at MGPO Assembly Row and will limit over-utilization or testing for unproven reasons.

Also, as discussed in the DoN narrative, MGH and MGPO's existing imaging clinic locations follow quality assurance mechanisms made capable through the EHR to ensure proper utilization of MRI exams. First to note, physician orders for MRI tests are placed through electronic Radiology Order Entry forms in Epic, which utilize a programmed clinical decision support mechanism to guide physicians in determining the most appropriate exam based on a patient's medical history and indication. Specifically, upon order placement in the EHR, a validation check is performed using the American College of Radiology's ("ACR") "ACR Select" tool. Founded in 1923, the ACR represents nearly 40,000 diagnostic radiologists, radiation oncologists, interventional radiologists, nuclear medicine physicians and medical physicists. The ACR is guided by its core purpose to serve patients and society by empowering members to advance the practice, science and professions of radiological care, and through its core areas – advocacy, economics, informatics, education, quality and safety, research, and membership value — is leading the transition to value-based, patient-centered care. Today, the ACR is at the forefront of radiology evolution, is considered the premier source of radiology information and resources, and is the "Voice of Radiology" in matters of legislation and regulation responsible for guiding radiology reimbursement and coding issues.

ACR Select is a comprehensive, national standards-based, clinical decision support database that uses evidence-based decision support for the appropriate utilization of all medical imaging procedures. More specifically, the tool delivers Appropriate Use Criteria ("AUC") authored by leading medical specialty societies directly into the EHR workflow at the point of care. This capability improves performance and efficiency by guiding clinicians to the right exam and reducing the number of exams needed to reach a diagnosis, and ultimately empowers quality improvement efforts through improved patient care and population health.

Moreover, MGPO physicians also have access to the Queriable Patient Inference Dossier ("QPID"), which can search and retrieve data based on clinical concepts. QPID aggregates EHR data across health care networks, prepares the information for rapid searching, and integrates search tools into a web-accessible search system that can be used to extract detailed information from a single patient's record or be run against an entire care unit census. In the realm of radiology, QPID searches have been developed to pre-screen patients scheduled for imaging for possible contraindications and the system also has the ability to alert physicians if duplicated imaging studies exist as new orders are submitted.

[6] From the *Choosing Wisely* Campaign of the American Board of Internal Medicine Foundation.

The use of clinical decision support mechanisms has impacted the utilization of imaging services at MGH and MGPO's existing imaging clinic locations, decreasing unnecessary MRI ordering. Based on these trends, three large commercial payers within Massachusetts have granted MGH/MGPO "Gold Status" for radiology services after recognizing the impact clinical decision support had on the utilization of imaging services. Gold Status within a payer contract ensures that the hospital/MGPO does not go through the initial financial clearance process with the payer for every imaging study/test that is ordered. Due to the clinical decision support mechanisms in place for ordering appropriately, these payers are confident that the hospital/MGPO are not overutilizing, which is in the payers' interests.

Finally, bi-annually, MGPO provides its members with reports outlining their radiology ordering history for the previous 6 months. Doctors are informed of variances between their ordering and other doctors within the same specialty, so they are aware of any discrepancies. These cost containment efforts ensure the appropriate utilization of radiology resources over time.

Additional Future Requirements

Beginning January 1, 2020, the Centers for Medicare and Medicaid Services ("CMS") will implement new AUC that will require ordering professionals to consult a qualified clinical decision support mechanism prior to ordering Medicare Part B advanced diagnostic imaging, such as MRI exams. According to CMS, the program will initially require physicians to report a code on their claims for advanced diagnostic imaging services covered by the program. Starting in 2021, without a code, the claim will be rejected. In addition to checking a clinical decision support tool to help make appropriate treatment decisions for the specific clinical condition, ordering professionals will also need to provide the information to furnishing professionals and facilities, as they must report an AUC consultation code on their Medicare claims. The furnishing professional and facility will need to append a new HCPHC modifier to the CPT code on the claim to denote AUC consultation occurred.

The Applicant highlights this future requirement as it will be in place when the new MGPO Assembly Row MRI units, if approved, come online. While MGH/MGPO physicians are already required to get prior authorization from insurers before providing diagnostic tests, as discussed above, this new requirement will add another layer of protection from unnecessary MRI utilization.

8. **Factor 1 requires us to consider "evidence of sound community engagement and consultation throughout the development of the Proposed Project, including documentation of the Applicant's efforts to ensure engagement of community coalitions statistically representative of the Applicant's Patient Panel." You describe community engagement as meeting with your Cancer Center PFAC (CC PFAC).**

    a. **Describe how members of the CC PFAC are selected and how you determined the degree to which they are representative of the Patient Panel.**

All of MGH's Patient and Family Advisory Councils ("PFACs") meet the requirements set forth in the Department's Hospital Licensure Regulations (105 CMR 130.000, specifically 105 CMR 130.1800 and 130.1801). These regulations require that "At least 50% of the Council members shall be current or former patients and/or family members and should be representative of the community served by the hospital." With regard to the Cancer Center PFAC ("CC PFAC")

specifically, it currently consists of 26 active members, 15 alumni members, and 8 staff members.

In terms of member recruitment, prospective members are nominated by Cancer Center physicians, staff or current CC PFAC members with the patient or family member's permission. Nominees are asked to complete an application which is reviewed by a CC PFAC staff member prior to an interview with select candidates. CC PFAC staff selects new CC PFAC members with a goal of having a diverse membership representing the cultural and socioeconomic diversity of Cancer Center patients and a variety of cancer diagnoses and treatments.

To be considered to serve on the CC PFAC, prospective members must meet certain qualifications. Patients and family members must have a recent history of receiving cancer care at MGH's Cancer Center. They must be able to use their own individual cancer experience in an objective way so that they can ask questions and offer a perspective that could be applicable to many patients and families living with cancer. They must possess good listening skills and be able to work collaboratively with others.

Today, CC PFAC members represent diverse perspectives and diversity in age, gender, diagnosis, treatment history, race/culture, and socioeconomic status. Current members represent at least 10 different Cancer Center disease programs. Staff members of the CC PFAC include the Cancer Center Executive Director, Cancer Center Nurse Director of Ambulatory Oncology Clinical Services, Associate Chief of Nursing, Cancer Center Director of Communications, Marketing and Education, an Oncology Social Worker, three project/program managers, and a medical oncologist.

b. While you state that standard cancer imaging services will be offered and that the Cancer Center will be a primary referral source to Assembly Row, explain how the CC PFAC is representative of the patient population that will use imaging services at Assembly Square, given the volume and types of CTs anticipated.

As noted in the DoN narrative, leadership determined it was appropriate to engage the targeted CC PFAC as it represents MGH's widely used oncology service, the proposed MRI units at the MGPO Assembly Row satellite will introduce standard cancer imaging services to the location, and the Applicant anticipates that the Cancer Center will be a primary source of referral for MRI services at MGPO Assembly Row. The most common CPT codes of MRIs ordered by MGH/MGPO physicians corroborate this. About half of the CPT codes realized at MGH/MGPO imaging locations are with contrast. While most work-related injuries, sports injuries and back pain don't usually call for contrast exams, contrast exams are indicated in other situations. For instance, contrast improves accuracy and enhances visibility of inflammation, tumors, blood vessels and, for some organs, blood supply. Across MGH/MGPO imaging locations, the single largest CPT code of MRIs ordered is head with contrast, which is standard in evaluation of brain tumors. While it will be appropriate for many cancer patients to continue to receive MRI services at MGH, particularly those who are undergoing active treatment and utilize the co-located Cancer Center services at the main campus, the Proposed Project will allow the Applicant to shift appropriate surveillance and follow-up appointments to Somerville, which will be more convenient for these patients and will help to ease capacity at the main campus.

c. Provide PFAC meeting materials (reference is made to Appendix 2b, but it was not included).

Attached is the agenda from the February 2019 CC PFAC meeting (Attachment 1).

d. Explain how many members of the PFAC (other than staff, consultants or clinicians providing services at Partners) attended the February 2019 meeting.

In total, 18 members of the CC PFAC attended the February 2019 meeting at which the Proposed Project was discussed. Of the 18 members, 14 were patients/family and 4 were staff members.

e. Provide a list of questions and answers, since you stated answers were provided.

As discussed in the DoN narrative, the primary focus of the February CC PFAC presentation was a discussion surrounding the need for the Proposed Project at Assembly Row. Although PFAC members had an opportunity to ask questions following the presentation by Jeremy Herrington, Director of Clinical Operations for MRI & Off-Campus Imaging at MGH, no formal question and answer session materialized. Rather, as noted in the DoN narrative, members engaged in a discussion following the presentation, voicing their opinions and support of the Proposed Project.

The overall tone of the discussion was that, due to capacity constraints, MGH/MGPO patients that need MRI – both for diagnosis and for ongoing surveillance – are currently underserved. There was a general consensus that there is a lack of timely access to MRI appointments and a need to reduce the current backlog and improve access for MGH/MGPO patients to low-cost, high-quality MRI services. Members expressed their opinion that patients could benefit from expansion of MRI services within an ambulatory care community setting in Somerville, speaking to the convenience of not having to go into the city and the cost-savings associated with the Proposed Project. There were no concerns related to the Proposed Project expressed by this group at the February CC PFAC meeting.

9. We understand that all Partners' primary care practices that participate in the MassHealth Accountable Care Organization ("ACO") are screening patients for SDoH needs, and that the PCP (as risk holder) holds responsibility for SDOH screening and referral. While you explain in general how the Assembly Row site will respond to the needs of previously screened MassHealth ACO patients when presenting for MRI services, describe:

a. How such efforts relate to any documented positive SDOH screening conducted by the PCP;

The Somerville clinic will be integrated into the same EHR as all of Partners, including MGH. As a result, for patients with a Partners PCP who has conducted the SDOH screening, staff at Somerville will have access to this information in the patient's EHR. The most common SDOH that is of relevance for a patient in need of imaging services is lack of transportation. Accordingly, if transportation is noted in the SDOH screen as a barrier to care, during the pre-scan screening call, Somerville staff will raise this with the patient and inquire whether transportation is needed. If the patient requires transportation, staff will arrange for such services to allow the patient to access imaging services at Somerville.

b. How patient is connected with a social or community health worker (on site, on phone or elsewhere) for referrals, and how would immediate needs (e.g. transportation) be addressed;

If, on the day of an appointment, a patient makes his/her ongoing SDoH needs known to staff at MGPO Assembly Row, staff will assist the patient in accessing necessary SDoH resources. Specifically, staff members will confirm that a request for assistance has been made by the patient and will help in linking the patient with a social or community health worker who may assist the patient directly or refer the patient to a community-based organization that may be able to provide specific services or supports. For patients with immediate needs, MGPO Assembly Row will work to address these needs to the best of their ability (e.g., a patient with a transportation barrier would be given information regarding accessing the MBTA Orange Line and/or would be assisted in signing up to participate in the Applicant's ride-share program).The patient's SDoH need(s) and circumstances determine the intensity of follow-up that is provided. These patients will also be referred back to their PCP for further assistance with SDOH needs.

In terms of social work services, MGH will be leveraged for these services at MGPO Assembly Row. MGH social workers are available to MGH/MGPO inpatients and outpatients on a walk-in or scheduled appointment basis. MGH social services is open 7 days per week and will align with MGPO Assembly Row's hours of operation. Social workers collaborate with the Applicant's providers and staff as well as community programs to assure delivery of comprehensive patient/family focused care. In performing their assessment, evaluation and treatment, social workers obtain and share, as appropriate, additional information from other providers within the MGH/MGPO and the larger community.

Similarly, the MGH Center for Community Health Improvement ("CCHI") may be leveraged for appropriate patients. The CCHI works with the community and the Applicant's hospital partners to bring together people and resources to address challenging health problems and SDoH issues and inequities. In terms of connecting to community-based organizations, the process is situation-specific and depends on the patient's specific SDoH need(s), the type of community organization that will be engaged, and the intensity of follow-up needed.

c. How PCPs are informed of additional referrals made; and

As discussed in the DoN narrative, SDoH screens are tracked in a patient's EHR in the Epic system. Tracking includes whether a SDoH screen was conducted, if there were positive responses indicating the patient needs assistance, and if the patient was provided with written support materials or referred to a support person. Moreover, case managers and other staff assisting patients with SDoH needs may provide notes in the Epic system as to where the patient is in the process of accessing resources to address his/her SDoH needs. Therefore, if the patient's PCP is within the Partners HealthCare system, he/she will have access to information regarding additional referrals through Epic. If the patient's PCP is outside of the Partners Healthcare system, he/she will be informed via "Care Everywhere" (which allows patients to authorize providers outside of Partners HealthCare to access their data and view their record for improved continuity of care) or fax/phone depending on the authorizations in place. Additionally, the Applicant is working to implement a data exchange system with external community-based partners that will enable the Applicant's practices and providers to understand

the final disposition of the patient if referred to an external organization for support.

d. How these protocols differ for those not in a MassHealth ACO.

If a non-MassHealth ACO patient presents for MRI services at MGPO Assembly Row and makes his/her SDoH needs known to staff at MGPO Assembly Row, staff will follow the same protocols outlined above for MassHealth ACO patients.

10. While we understand Partners' robust policies with regard to CLAS and health equity, explain how language assistance will be offered at the site and at which points of care, including initial appointment inquiry, throughout the imaging, as well as reporting of results. Be sure to include:

a. How patients making appointments for scans will be made aware of the interpretation and language access and assistive services that are offered;

As outlined in the DoN narrative and in Question #9, SDoH screens are generally conducted by the PCP. Language access needs are captured during this screen and entered into the patient's EHR. Therefore, staff at MGPO Assembly Row will be aware of a patient's interpretation and language access needs and will work to coordinate access to such services with the patient prior to the appointment.

If there is no history of interpretation and language access needs in the patient's record, staff at MGPO Assembly Row will confirm whether access to interpretation and language access services are required during the scheduling and/or check-in process and will explain the services available. If a patient makes his/her interpretation and language access needs known to MGPO Assembly Row staff during this process, staff will assist the patient in accessing such services. Finally, signage informing patients of their right to an interpreter free of charge at any point in their care will be posted at the main entrance to MGPO Assembly Row, at check-in and in all patient areas.

b. In that area of Somerville, which languages are likely to be requested;

The Applicant anticipates that the following languages are likely to be requested at the proposed MGPO Assembly Row site: Spanish, Portuguese, Mandarin, Cantonese, Arabic, Japanese, Korean, and Khmer. The Applicant also anticipates that American Sign Language ("ASL") interpreter services will be requested. This estimation is based on U.S. Census Bureau data, the Cambridge Health Alliance 2017 Community Health Needs Assessment, and the Applicant's experience with interpreter services at Mass General Primary Care 's Assembly Row location.

c. What is the percentage of live vs video/telephone interpretation anticipated; and

It is anticipated that 95% of the encounters for patients with Limited English Proficiency will be conducted over the phone or by video. For patients that are Hard-of-Hearing or require access to language services in-person, the Bulfinch Temp Agency (the Mass General temporary employment agency) has a list of interpreters available to be contacted to come to Somerville on a per diem basis. ASL interpreters are also available in-person from Bulfinch Temp Agency to come to Somerville to interpret for patients who request an in-person ASL interpreter.

d. How interpreter services will be arranged for patients receiving same-day scans when a live interpreter is needed.

The Bulfinch Temp Agency has a list of interpreters available to be contacted for same-day scans for an in-person encounter. The Applicant also has contracts with two interpreting agencies, Interpreters Associates and Cross-Cultural Communication Systems, to make last minute requests for in-person interpreters.

11. In order to assess Factors related to containment and competition, you explain that the Medicare Physician Fee Schedule (MPFS), rather than hospital-based rates will be billed for MRI services. Explain:

a. How rates will be applied for non-Medicare patients (as viable to provide);

Payer-specific non-hospital fee schedules will be used on non-Medicare patients. Similar to the Medicare Physician Fee Schedule (which is the schedule under which ITDFs are reimbursed by Medicare), these non-hospital rate schedules are significantly lower (by approximately 50%) than hospital rates and are negotiated between the provider and payers.

b. Whether you will also charge a facility fee from payers and/or patients in addition to the MRI; and

The clinic charges the professional and technical (i.e. facility fee) components of the service. However, the rate reimbursed for the technical component for services provided by an IDTF is lower than that of a hospital outpatient department imaging service as explained above.

c. Provide an estimate of the potential Partners system-wide savings with supporting rationale including how this project will not negatively impact TME.

Tracking actual metrics associated with avoided costs (cost savings) with respect to the benefits of earlier diagnosis due to increased imaging access and unnecessary testing are challenging given a lack of readily available uniform data. First, although multiple evidenced-based studies have shown that access to earlier treatment leads to earlier diagnosis and a positive impact on quality measures, including mortality rates, it is difficult to track how quickly a patient sought services for a specific condition/disease, and therefore to obtain uniform data on the impact of access on a disease/condition. Accordingly, it would be difficult to track the benefits of earlier diagnosis on an entire population of patients with multiple diseases and conditions due to increased imaging access, and thus, difficult to track the avoided costs or system-wide savings.

Second, preventing unnecessary testing leads to patients forgoing specific types of tests, which aligns with the objective of ensuring appropriate utilization of resources. However, tracking avoided costs (cost savings) due to avoidance of unnecessary tests is nearly impossible for an entire population of patients. This is because the analysis required entails a detailed review of review individual case notes on every patient that had some type of radiology service to determine if a specific type of test was avoided. Additionally, the doctor may not have included this specific information within his/her notes, and therefore, these avoided costs would not be counted, making it impossible to determine overall cost savings from the Proposed Project.

Finally, it is important to recognize that total medical expenditures ("TME") takes into account the costs associated with providing and paying for care (including provider costs, payer costs and patient costs). An impact on at least one of these cost categories will have an impact on overall healthcare expenditures, and therefore, TME. The Proposed Project seeks to shift existing, clinically appropriate scans from the hospital setting to a significantly lower-cost setting. Consequently, overall payer costs will be lower for these scans as the rate of reimbursement is lower. In addition, patient costs in the form of co-pays and other co-insurance are typically lower when care is provided in an IDTF than a hospital because the overall cost of care paid by the insurer is lower. Accordingly, this impact to payer costs and patient costs leads to overall lower TME.

Additionally, the newly created main campus access may also be used to reduce the wait times and backlog for the high acuity, inpatient and emergency populations, as well as those outpatient MRI services that can only be offered in a hospital setting (pacemaker exams, cardiac exams, sedation, etc.). Improved access to the appropriate MRI site of care at both settings has a favorable impact to TME given by reducing delays in diagnosis and the ability to pursue lower cost forms of treatment.