APPLICANT QUESTIONS

Responses should be sent to DoN staff at
DPH.DON@State.MA.US

While you may submit each answer as available, please

- List question number and question for each answer you provide
- Submit responses as a separate word document, using the above application title and number as a running header and page numbers in the footer
- When providing the answer to the final question, submit all questions and answers in one final document
- Submit responses in WORD or EXCEL; only use PDF's if absolutely necessary. If "cutting and pasting" charts, provide them in a PDF so they can be clearly seen

Your complete responses are due to DPH no later than November 20, 2019. In order for the Department to take final action on your Application within the four month timeframe set forth in state law, your timely response is requested.

Overall Questions

1. **Payer mix is not included in your description of the Patient Panels. Provide the payer mix for the Partners Patient Panel, the NWH Patient Panel, and for each of the Patient Panels associated with the five components of this Application.**

Be sure to separate out payers in both ways:

APM Contract percentages (for any system- affiliated Primary Care	Payer Mix-List percentages (must =100%)
• ACO and APM Contracts • Non-ACO and Non-APM Contracts	• Commercial *If possible, by* ○ *Commercial PPO/Indemnity* ○ *Commercial HMO/POS* • MassHealth • Managed Medicaid *(Private Medicaid/Medicaid MCOs)* • Commercial Medicare *(Private Medicare/Medicare Advantage)* • Medicare FFS • All other (e.g. HSN, self-pay, TriCare)

Partners ACO and Managed Care Contracts

The percentage of Partners' primary care lives covered in risk contracts is 57.9%[1] This percentage is derived from the number of **primary care lives** within the patient panels of the Partners' primary care physicians ("PCP") that are covered under risk contracts (Partners bears the risk). This data **does not include** referral patients as such patients are not managed by a Partners PCP and are not included in Partners' risk contracts.

Of note, the data used to determine the percentage of lives covered in Partners' risk contracts differ from the Partners' 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' patients that received care over the last three fiscal years from one of the five Partners 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, particularly with the system-wide adoption of Epic (Partners' 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. Currently, there are some Partners' 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' 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 staff are working on how best to provide this information. From a Partners' 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 staff are working through how this information may be reported to the Department of Public Health. 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.

Payor Mix List Percentages

Please refer to the tables below for the payer mix of the Partners HealthCare System ("Partners HealthCare" or "the Applicant") patient panel for FY15, FY16, and FY17 (Table 1) and the Newton-Wellesley Hospital patient panel for FY16, FY17, and FY18 (Table 2).

[1] The number of risk members is for CY2018 and includes members from the following risk contracts:
Medicare ACO - NextGen, 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.

Table 1: Partners HealthCare Payer Mix Percentages[2]			
Payers by Category	**FY15**	**FY16**	**FY17**
Category			
Commercial	60.9%	61.2%	59.6%
Managed Medicaid	4.4%	4.5%	5.3%
MassHealth	4.0%	3.5%	3.8%
Commercial Medicare	2.7%	3.4%	3.8%
Medicare FFS	23.1%	22.9%	22.7%
Other	4.9%	4.6%	4.8%

Table 2: Newton-Wellesley Payer Mix Percentages

NWH Payer Mix (Net Patient Service Revenue)[3]	FY16	FY17	FY18
Commercial			
Commercial PPO/Indemnity	31.74%	32.55%	31.50%
Commercial HMO/POS	24.31%	23.14%	21.78%
National	8.78%	9.18%	9.56%
Other Commercial	3.06%	3.69%	3.73%
Mass Health	1.47%	1.71%	2.28%
Managed Medicaid	1.40%	1.39%	0.88%
Commercial Medicare	3.74%	3.75%	4.44%
Medicare FFS	20.99%	20.62%	22.07%
All Other	4.51%	3.97%	3.80%
Total	**100.0%**	**100.0%**	**100.0%**

Notes: Includes Inpatient and Outpatient NPSR

Commercial PPO/Indemnity:

BCBS Elect
BCBS OOA
HPHC PPO

[2] Please note the following regarding the Partners HealthCare data: (1) Reflects aggregate Partners HealthCare revenue for the 2016, 2017 & 2018 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.

[3] Note: The percentages are based on net patient service revenue, unlike CHIA data, which is based on gross patient service revenue.

THP PPO
HPHC/United Alliance
THP/Cigna Alliance

<u>Commercial HMO/POS</u>

HMO Blue PCP
HMO Blue Referral
Harvard Pilgrim PCP
Harvard Pilgrim Referral
TAHP PCP
TAHP Referral

<u>National</u>

Aetna
Cigna
United
PHCS+Unicare
Other National Carriers

<u>All Other</u>

NHP Medicaid
NHP Connector Care Plan
Connector Care Plans
Government – Other
Self Pay
International
Free Care

Please note, that the Health Policy Commission and the Center for Health Information and Analysis ("CHIA") require annual payer mix reports from the Applicant; however, revenue for these reports is broken down via a standard template, which contains the following categories: commercial (specifically naming plans), Medicaid and Medicare.

Also, the Department of Public Health ("Department") requested that the aforementioned data be provided for each of the five components of the Determination of Need ("DoN") application. However, as discussed with the DoN Director, this process would be labor intensive, and as previously discussed, Partners' staff are still determining how best to provide information on non-ACO and/or non-managed care contracts.

Overall Questions

2. **Complete missing data in the Patient Panel chart (attached below—ignore shaded areas) for the five project components, as much as is feasible.**

Table 1: Overview of Applicant Patient Panel, Patients at NWH, and Patients Seeking Services within each Project

	Partners	**NWH**	**OU**	**Endoscopy**	**SCN**	**Psychiatric Unit**	**Cardiac CT**[4]
Total Unique Patients (FY18)	1,504,478	210,536	3,605	11,290	621	625	500
Gender (FY18)							
Male	41.9%	39.1%	43%	47%	60%	50%	
Female	58.1%	60.9%	57%	53%	40%	50%	
Age (FY18)							
0-17	11.5%	14.2%	13%[5]	2.2%[8]	0-2[11]	19-59 (80.2%)[12]	
18-64	61.7%	62.9%	36%[6]	46.6%[9]		60+ (15.6%)	
65+	26.8%	22.8%	51%[7]	51.2%[10]			
Race (FY18) [13]							
White	72.6%	82.4%	85%	90%	71.7%	80%	
Black or African American	5.5%	2.9%	3.6%	1.9%	5.8%	6.7%	
Asian	4.1%	6.3%	5.5%	4.4%	14.5%	4.6%	
Hispanic/Latino	1.4%	0.2%	0.3%	0.15%	N/A	0.3%	
Native Hawaiian or Other Pacific Islander	0.1%	0.2%	0.5%	0.13%	<1%	0.3%	
American Indian or Alaska Native	0.1%	0.1%	0.1%	0.04%	<1%	0.5%	
Other/Unknown	16.1%	7.8%	5.2%	3.5%	6.9%	7.0%	
Patient Origin (FY18)[14]							
HSA 1	6.0%	0.3%					
HSA 2	3.3%	5.7%					
HSA 3	6.5%	1.7%					
HSA 4	43.4%	80.8%					
HSA 5	13.6%	5.4%					
HSA 6	16.2%	1.8%					
Outside of MA	10.5%	4.2%					
International							
Unknown	0.4%	0.1%					

3. **In your application, you cite the Health Policy Commission's 2016 Report on Community Hospitals which states that Community Hospitals provide valuable contributions including serving government payers[1] (pg. 16). According to reporting from CHIA, NWH receives the lowest percentage of business from public payers of any non-**

[4] The Cardiac CT scanner will establish a new cardiovascular imaging program at NWH's Cardiovascular Center, so there is no historical volume data available and no Patient Panel data available. Applicant estimated number of patient's upon acquisition in Year 1 based on patients within NWH's patient panel with relevant diagnoses.
[5] 13% of observation patients were in the 0-18 age cohort.
[6] 36% of observation patients were between the ages of 19-59.
[7] 51% of all observation patients were in the 60+ age cohort.
[8] 2.2% of endoscopy patients were in the 0-18 age cohort.
[9] 46.6% of endoscopy patients were between the ages of 19-59.
[10] 51.2% of endoscopy patients were in the 60+ age cohort.
[11] All patients utilizing the SCN services are in the 0-2 age cohort.
[12] Age cohorts provided by the Applicant
[13] Based on self-reporting.
[14] Aggregated zip code data by HSA

specialty acute hospital.[2] (Public Payer Mix: 42.0% (Non-HPP Hospital in 2017 Profile).

It is important to recognize that all community hospitals have a service area where the majority of its patients reside. This service area tends to be comprised of those cities/towns surrounding the hospital. The towns comprising NWH's service area tend to have higher median household incomes when compared to the service areas of other community hospitals. Accordingly, this factor coupled with patient choice in where an individual receives care have a major impact on NWH's public payer percentage.

a. As we evaluate Factors related to health equity and health systems transformation, describe any efforts to increase participation from public payers at NWH.

NWH serves patients who are public payer beneficiaries; however, due to its location, and its role as a community hospital, its service area is generally comprised of cities/towns with a lower percentage of residents insured by public payers. As outlined on page 30 of the DoN Narrative within Section F.1.b.iii, NWH seeks to ensure equitable care to all populations regardless of payer. Accordingly, NWH offers the programming outlined in this section of the DoN narrative. These efforts are on-going and will continue throughout the implementation of the Proposed Project. In addition to the noted initiatives outlined in the DoN narrative, NWH has in place the following efforts: 1) NWH hired a community health worker in Waltham to address health equity issues specific to this community; and 2) Growing efforts to ensure transportation, providing patients with needed access to care.

4. **Factor 1 requires the Applicant to demonstrate how a Proposed Project will provide reasonable assurances of health equity.**

a. What processes do you have in place to ensure that every patient who needs language access services obtains the services in a timely and competent manner?

NWH maintains a robust Interpreter Services program for its limited English proficiency ("LEP") and deaf and hard of hearing ("DHH") patients. Through the use of contracted services, telephonic systems, video systems and per diem interpreters, the Hospital assists patients speaking almost 40 languages in order to provide them with safe and appropriate access to health care services 24 hours per day, 7 days per week. As outlined in its Interpreter Services Policy, the Hospital has the following processes in place to ensure that every patient who needs language access services obtains the services in a timely and competent manner:

1. Identifying Interpreter Needs

At the time of registration, all patients are asked what the primary language of the home is. If the patient's preferred communication language is not English, the Hospital's patient registration staff offers the patient access to interpreter services and informs the patient that interpreter services are free. The patient's primary language, whether or not an interpreter is required, and any refusal of interpreter services is documented in the patient's medical record.

Patient need for language assistance is also assessed through the initial assessment process. This includes asking "What language do you prefer to use when discussing your healthcare?" and "What language do you prefer for written communications?". The need for an interpreter, accommodation or specific auxiliary aid is included in the assessment. Patients are also informed during the assessment process that the services for an interpreter are free of charge.

2. Accessing Interpreters

Contract in-person interpreters are available on an on-call basis 24 hours per day, 7 days per week. When possible, 48 hours' notice is required to schedule an interpreter from the contract provider. The Hospital utilizes an interpreter service request form to request a contract interpreter from Cross Cultural Communications Systems, Inc.

In addition to in-person interpreters, telephonic remote interpreter services are available when appropriate based on clinician and patient preference and/or when in-person interpreters are not available. Specifically, the Hospital purchases the services of Pacific Interpreters which has competent interpreters available to provide oral language assistance, either during an episode of care or as follow-up for communicating test results. The Hospital offers portable speaker phones called Interpreter Phones on a Pole ("IPOP") to access Pacific Interpreters. IPOP units are available in most inpatient and outpatient locations (all departments have access to IPOP units) and can be wheeled into a patient's room and connected to an interpreter 24 hours per day, 7 days per week. The procedure for accessing the remote telephonic interpreter services is attached to the IPOP and is included in Hospital's Interpreter Services Policy as well.

The Hospital also recently implemented VOALTE phones which can also be utilized for accessing Pacific Interpreters' telephonic interpreting services. Clinical staff assist patients in accessing telephonic remote interpreter services using VOALTE phones by following the instructions set forth in the Hospital's Interpreter Services Policy. The instructions can also be found in the Partners' Paging On-Call Directory under Interpreter Services.

Finally, the Hospital's Interpreter Services Policy provides specific processes for accessing interpreter services for DHH patients. Some patients are DHH, speak English and do not use American Sign Language ("ASL"). For these patients, the Hospital offers Communication Access Real-time Translation ("CART") services. This service provides real-time transcription to an internet connected device using a speakerphone via a remote service. Instructions for using CART services is included in the Hospital's Interpreter Services Policy.

For all other DHH patients that do use ASL, the Hospital's Interpreter Services Policy provides that Certified ASL interpreters are required. NWH accesses Certified ASL interpreters through the Massachusetts Commission for the Deaf and Hard of Hearing ("MCDHH") via Bullfinch Temp Services, telephonic communication, or via Deaf-Talk. The Hospital utilizes an interpreter service request form to request an ASL interpreter. Additionally, a text communication device ("TTY") is also a useful aid in communication for DHH patients. Portable TTY's are located in the Hospital and clinical staff assist patients in using the TTY by following the instructions attached to the device. Finally, the Hospital uses Deaf Talk to provide video interpreting for DHH patients. There is a Deaf Talk device available for use in any location within the Hospital that has wireless connectivity; the device can be signed out for use 24 hours per day, 7 days per week from the Emergency Department. To ensure that the device is available for others, the Hospital's Interpreter Services Policy provides that the device must be returned to the Emergency

Department promptly after each use. Instructions for using the device and accessing the ASL interpreters is attached to the Deaf Talk device and is included in the Interpreter Services Policy as well.

3. Training and Notice

To further ensure that every patient who needs language access services obtains the services in a timely and competent manner, the Hospital requires staff training at least annually. The purpose of such on-site educational sessions is to orient staff to the Interpreter Services Policy, educate staff on the procedures for accessing interpreter services, and provide training on the concepts and practices of culturally and linguistically appropriate healthcare delivery, including issues pertinent to LEP and DHH patients. In addition to this training and the Interpreter Services Policy, the Hospital offers instruction about interpreter services on its Intranet site.

Finally, language access services are promoted through Hospital signage and medical brochures in various languages. Signage that has been translated into commonly encountered languages is posted at all central points of patient contact, including points of access and areas of patient registration, regarding the legal right to free interpreter services. There is also a notice of patient rights to an interpreter in the Patient Handbook and on the Hospital's website and grievance procedures regarding access to interpreter services are also posted conspicuously throughout the Hospital with contact information. All of these practices help to ensure that all patients in need of language access services are aware of the Hospital's available services and obtain such services in a timely and competent manner.

b. You say that you have adopted the CLAS standards. Explain how NWH leadership supports the adoption of CLAS standards and examples of policies or procedures within the 5 project components. Refer to the guide on CLAS https://www.mass.gov/lists/making-clas-happen-six-areas-for-action.

The Department's guide to Culturally and Linguistically Appropriate Services ("CLAS"), "*Making CLAS Happen: Six Areas for Action*," divides the CLAS standards into the following six categories

1. Foster cultural competence;
2. Build community partnerships;
3. Collect and share diversity data;
4. Benchmark: plan and evaluate;
5. Reflect and respect diversity; and
6. Ensure language access.

NWH leadership is committed to cultural and linguistic equity and has supported the adoption of the CLAS standards in several ways:

1. Foster Cultural Competence

NWH is committed to fostering cultural competence. To this end, the Hospital seeks to ensure that all staff have cultural competency training. As noted above, staff receive orientation to the Interpreter Services Policy, education on the procedures for accessing interpreter services, and training on the concepts and practices of culturally and linguistically appropriate healthcare delivery, including issues pertinent to LEP and DHH patients. Patient Access and Central Registration staff are also required to complete the "*America's Essentials Hospitals Race, Ethnicity and Language*" module in the Hospital's HealthStream Learning Course

("HLC") training program.

Additionally, Senior Leadership has made the completion of the HLC module "*Providing Safe and Effective Care to Patients with Limited English Proficiency*" an organizational goal. This module addresses the evidence of disparities and high rate of medical errors for patients with LEP, provides training on concrete skills for working with professional interpreters as integral members of the care team, and explores how systems of care can be improved for patients with LEP. The module is assigned to physicians, nurses, and frontline staff, and all new hires are assigned this course as well. Reports from HLC are generated to monitor compliance. As of September 2018, a compliance rate of 83% was achieved, with reminders sent to staff who had not yet completed the training.

Moreover, NWH is dedicated to offering understandable, respectful care. As noted above, NWH maintains a robust Interpreter Services program and has detailed processes in place to ensure that every patient who needs language access services obtains the services in a timely and competent manner. Through the use of contracted services, telephonic systems, video systems and per diem interpreters, the Hospital assists patients speaking almost 40 languages in order to provide them with safe and appropriate access to health care services 24 hours per day, 7 days per week. With regard to contract services for interpreter services, NWH requires that these programs provide the required documentation upon request to ensure competence of the interpreters.

2. Build Community Partnerships

NWH collaborates with various community organizations to improve the health of underserved populations in the community. Community partnerships include, but are not limited to, the following:

- West Suburban Community Health Network Area 18 – The Hospital participates in the West Suburban Community Health Network Area 18, a regional coalition of public, nonprofit, and private organizations working together to build healthier communities. With a focus on developing collaborations among community groups and across communities, the coalition serves as a resource for local agencies and organizations to gather information, share ideas, and network on a regular basis. The coalition also offers grant opportunities and educational and training events for public health professionals.
- Waltham Partnership for Youth – The Hospital participates in the Waltham Partnership for Youth, a program where 20 youth go through interpreter training and provide interpretation on mental health and substance use.
- Newton-Wellesley Collaborative for Healthy Families and Communities ("CHF&C") – The CHF&C was formed to enhance the services and resources that address unmet patient and community wellness needs. Some of the CHF&C's work includes: creating partnerships between NWH's Child and Adolescent Mental Health Program and area high schools; providing free flu vaccination clinics; supporting home-based programs to prevent seniors from falling; providing donations of Naloxone (Narcan) to first responders for emergency treatment of overdoses; providing lunches for school children in Waltham during summer break; funding a strong domestic violence support effort; and hosting community events focused on aspects of healthy living and socialization.
- Speakers Bureau – The CHF&C offers the Speakers Bureau, which provides qualified speakers free of charge for civic organizations, businesses, schools, and community groups. This free community

service is designed to provide up-to-date information on a wide variety of health and wellness issues. Available topics include: children/adolescent mental health, adult mental health, elder services, high school/municipal sports, nutrition, pharmacy, palliative care, and substance use.

- Resilience Project – The Resilience Project is an innovative school- and community-based initiative designed to promote the mental health and well-being of adolescents. It provides support to students, parents, educators, counselors and communities through collaboration with school personnel, customized educational programming and improved access to treatment resources. The Resilience Project is part of NWH's Division of Child and Adolescent Psychiatry and aims to support the development of good mental health in children and adolescents through close collaboration with both parents and schools.
- Stress Management and Resiliency Training ("SMART") – SMART is the Mind-Body Program offered at NWH. During the 8-week course, participants learn skills that are proven to change brain chemistry, reduce symptoms, improve coping and resiliency, and enhance overall quality of life.
- Support Groups – NWH offers various support groups including: breastfeeding support groups; a skills group for parents; childbirth loss support groups; cancer support groups; a cardiac rehabilitation program; a heart failure prevention and monitoring program; a diabetes management program; weight loss surgery support groups; tobacco cessation information sessions; and a young widow/widower support group.
- Hornby's Closet – NWH participates in Hornby's Closet, is a program created to provide clothing to patients in need.

Additionally, NWH has a PFAC that meets throughout the year and assists frontline leaders and staff with designing, implementing, and evaluating polices, practices and services to ensure cultural and linguistic appropriateness and improve the health of underserved populations in the community.

3. Collect and Share Diversity Data

NWH, like all member hospitals of Partners HealthCare, uses EPIC as its electronic health record ("EHR"). The EPIC platform allows NWH to collect better, more detailed patient demographic data, including race, ethnicity, language preference and other socio-economic data. All patients – including those across the 5 project components – are asked about their demographic data at time of registration and this information is then added to the patient's EHR. As noted in the DoN Narrative, NWH has also implemented a sexual orientation/gender identity database that allows Hospital staff to collect this data on patients, so each individual may be provided with culturally competent care and be informed of available programs.

Additionally, NWH conducts a Community Health Needs Assessment ("CHNA") every 3 years. The most recent CHNA and Community Heath Implementation Plan were completed in 2018. The goal of these activities is to understand community needs, identify vulnerable populations, and determine gaps in service.

Informed by the patient data collected through EPIC and the CHNA, NWH has implemented and/or participated in the following initiatives to ensure all patients receive equitable care:

- To address barriers that DHH patients experience in receiving care, NWH is seeking to add members of the DHH communities to the Hospital's Community Benefits Committee to ensure appropriate programming and resources for these patients.

- Interpreter services staff at NWH are also reviewing processes and practices with these patient populations. Detailed information regarding the services available to LEP and DHH patients at NWH is provided above.
- As noted above, the Hospital participates in the West Suburban Community Health Network Area 18, a regional coalition of public, nonprofit, and private organizations working together to build healthier communities.
- As noted above, NWH is working with various projects and community organizations to improve the health of underserved populations in the community, including, but not limited to: the Waltham Partnership for Youth, CHF&C, Speakers Bureau, Resilience Project, SMART, support groups, Hornby's Closet, and working with Newton on Substance Use – Opioid Week.
- Finally, the Hospital has done work on readmissions, tobacco and substance use by race, ethnicity and Hispanic indicator. In this regard, the Quality Data Analytics team has reviewed quality, safety, and access measures to determine which would be used to determine if health disparities exist and the Partners Health Equity and Quality Committee has worked to developing a readmission report focusing on disparities of care.

4. <u>Benchmark: Plan and Evaluate</u>

The Hospital conducts ongoing assessments of its CLAS-related activities and integrates CLAS-related measures into measurement and continuous quality improvement activities. Assessments are conducted throughout the year and are included in the review of response rates to patient satisfaction surveys, patient education materials (Patient Handbook), and the implementation of staff education modules. Resource allocation for CLAS-related activities is conducted annually during the budget season and is ongoing throughout the year.

Two specific groups at the Hospital are instrumental in these processes. NWH has an Experience/Engagement Work Group which assists in the development of culturally and linguistically appropriate goals for review by the Strategic Leadership Team ("SLT") and provides oversight and governance of the CLAS standards. The SLT assists with the process in determining best methodology for ensuring management accountability. Specifically, the SLT collaborates with the Director of Community Benefits to determine the needs and services required for the cultural and linguistic diversity of the NWH catchment area; provide an annual report to the Experience/Engagement Work Group for recommendations regarding any new or enhanced service opportunities; and conducts regular assessments of community health assets and needs and use the results to plan and implement services that respond to the cultural and linguistic diversity of populations in the service area.

5. <u>Reflect and Respect Diversity</u>

NWH recruits, promotes and supports a culturally and linguistically diverse governance, leadership and workforce that are responsive to the population in the service area. The leadership team and the Board of Trustees are diversified and support the CLAS standards. There is representation from each of the Hospital's service areas and there is a mix of gender and sexual orientation. The frontline workforce is also diversified and represents a wider range of race, ethnicity, gender and sexual orientation. Finally, the Hospital has an Equal Employment Opportunity/Affirmative Action" policy in place and Vice President of

Human Resources collaborates with the HR Business Partners to review the applicant pool for qualified candidates to promote diversity at NWH.

Furthermore, NWH participates and is committed to the American Hospital Association's #123Equity Pledge Campaign. Efforts to meet the campaign's goals are outlined on pages 31 and 32 of the DoN narrative and also provide additional information on reflecting and respecting diversity.

6. Ensure Language Access

As noted above, NWH maintains a robust Interpreter Services program and has detailed processes in place to ensure that every patient who needs language access services obtains the services in a timely and competent manner. Through the use of contracted services, telephonic systems, video systems and per diem interpreters, the Hospital assists patients speaking almost 40 languages in order to provide them with safe and appropriate access to health care services 24 hours per day, 7 days per week. These services are available at no cost to the patient.

All patients are asked about their preferred language and need for an interpreter at time of registration and during the nursing/learning assessment. Moreover, interpreter services signs are located throughout the Hospital. There is signage in points of access and areas of patient registration. There is notice of patient rights to an interpreter in the Patient Handbook and on the Hospital's website.

c. We understand that every patient at NWH is screened for the following SDoHs: violence, neglect and abuse, and a variety of psychosocial needs. While we understand that the responsibility for SDoH screening lies with the ACO members' PCP, describe

   i. **Processes to ensure a positive screen is addressed when a patient presents through any of Proposed Project components**

Observation Unit: Patients within the observation unit are rounded on during their stay in the unit and prior to discharge by a multi-disciplinary care team, including a patient's nurse, case manager, physician assistant, and physician. This team rounds daily at the patient's bedside. During team rounds, all issues including discharge needs (SDoH needs) are discussed, and a plan developed for post-discharge. This plan may include linkages to community-based organizations, post-discharge follow-up with a PCP and/or scheduling transportation for the patient through NWH's transportation program with Lyft (this transportation program is for all patients.).

Special Care Nursery ("SCN"): As currently occurs in the SCN, the expanded SNC will follow the same process where multi-disciplinary team members round on patients and social workers will be available to work with families on any SDoH and clinical needs. To ensure families return to a safe environment in the community, social workers ensure post-partum depression screenings occur and implement safe care plans for mothers in need of such services.

Specialty Care Units: On the day of an appointment or admission, if a patient makes his/her ongoing needs known to staff within a specialty clinic (such as the Endoscopy Department, the Psychiatric Unit or Radiology), staff within each area, such as a social worker or community health worker will assist the patient. This staff member confirms that a request for assistance has been made by the patient. Upon confirmation, the staff member may assist the patient directly or refer the patient to a community-based organization that may be able to provide specific services or supports. The patient's SDoH need(s) and circumstances

determine the intensity of follow-up that is provided. These patients also are referred back to their PCP for further assistance with SDOH needs.

All 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 ("Tip Sheets") 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.

ii. **Any differences in SDOH screening for patients in ACOs/managed risk plans vs non-ACO patients/managed risk plans.**

With respect to SDoH screening, NWH performs screens on a payer blind basis. At NWH every patient is screened for the following SDoH: violence, neglect and abuse and a variety of psycho-social needs. Psycho-social needs include the eight SDoH domains. Hospital staff utilize the screening tool in Epic to conduct screens. Moreover, the hospital has discharge planning processes in place to address any SDoH issues prior to a patient returning home. This process allows case manager and social workers to ensure that a patient's needs are being addressed and that he/she has been linked to the appropriate community-based organization(s) for services. In regard to post-discharge follow-up, patients are contacted if they do not fill necessary prescriptions or if they fall within a high-risk group, such as the iCMP population. Those individual in high-risk groups are followed closely to ensure proper care management.

5. **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."[3] We require additional information on how this was accomplished:**
   a. **Describe how members of the Patient and Family Advisory Council (PFAC) are selected and how you determined the degree to which they are reflective of the Patient Panel.**

Selection of PFAC members: NWH's PFAC members go through an interview process to be selected by the committee. The first step to becoming a PFAC members is a telephonic interview with a Senior Manager at NWH. If the candidate meets the criteria for inclusion in the committee and the Senior Manager believes that the individual may be appropriate for the committee, an application for inclusion in the committee is sent to the candidate for completion. Next, the individual's name is forwarded to two current PFAC members, who then contact the individual and schedule interviews. After this process, if the PFAC members believe the individual should be added to the committee, the candidate is then added to the PFAC.

The Degree to which the PFAC Reflects the Patient Panel: The NWH PFAC meets the requirements set forth in the 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." Consequently, the NWH PFAC meets these requirements.

   b. **List how many PFAC members of the total were in attendance at the May 22 meeting and any others attending (other than staff or clinicians employed by**

or working at Partners/NWH)

9 of the 14 (64%) community PFAC members attended the May meeting.

c. **Describe the attendance at the local community Department of Public Health meeting.**
   i. **How did you determine the degree to which those in attendance are reflective of the Patient Panel?**
   ii. **List how many people were in attendance at this meeting, other than staff or clinicians employed by or working at Partners/NWH.**

Over the summer, Ms. Lauren Lele, MPA, CAVS, Director of Community Benefits and Volunteers and Ms. Nora Wells, MBA, MPH, Senior Manager, Strategic Planning and Implementation at NWH presented at the local Department of Public Health meeting on the Proposed Project. This group meets quarterly and is comprised of leaders from various Departments of Public Health and other local community agencies, such as the Newton, Needham, Natick, Waltham, Weston and Wellesley Departments of Public Health and local Councils on Aging. This group discusses current and relevant health-related topics to determine best practices and explore opportunities for collaboration. At this meeting, 19 members attended, 10 of whom were community members. None of the individuals had any questions regarding the Proposed Project. Moreover, in their roles as public health officials, these individuals represent numerous other community members reflective of the patient panel. Attendees are members/leaders of the community who represent different constituents and different health areas of focus.

d. **Provide feedback received from participants/community members engaged during the development of the Proposed Project.**

In regard to feedback, PFAC members were interested in the Community Health Initiative component of the Determination of Need and asked that a representative from Community Benefits attend a future PFAC meeting to discuss the distribution of funds for projects. Additionally, all members were enthusiastic about the Proposed Project and the impact it will have on the Hospital. The Department of Public Health meeting also comprised community members that were positive about the project, members appreciated being informed about the proposed projects and the DoN application process.

6. **In order to understand how the Proposed Project will improve continuity and coordination of care for the Patient Panel, describe how the Population Health Management (PHM) strategies function across the 5 NWH project components, including how patients are identified for enrollment.**

The Applicant and NWH are committed to developing and implementing population health management ("PHM") strategies to ensure high quality outcomes and an exceptional care experience for all patients. As a system, the Applicant, in collaboration with its member hospitals, continues to develop PHM programs that utilize combined resources and capacity. Care models that are rooted in collaboration, including patient-centered medical homes, care integration and other care initiatives are specifically used throughout Partners hospitals. Accordingly, the Applicant and NWH offer a number of programs to ensure quality care for patients. Patients are enrolled in these various strategies regardless of the 5 noted projects.

For its highest risk and most complex patients, NWPHO's clinical staff offer the Integrated Care Management program ("iCMP"). iCMP provides eligible patients with a nurse care manager who develops a

care plan in tandem with the patient and other members of the clinical team. The care manager works in-person and telephonically to coordinate a patient's care and ensures that patients are not readmitted to the hospital when possible. Additionally, the care manager connects patients with community based resources that are vital for recovery. Criteria for enrollment include: 1) complex medical illness, identified by a provider or predictive modeling; 2) PHS patients in risk contracts and/or patients whose PCP has requested that they participate in the program; 3) the patient and his/her family are willing to engage with the care management team and are agreeable to engaging in longitudinal care management.

NWH also has a Cross-Continuum Group. This group was formed in response to the state-wide initiative to reduce readmissions in 2008. In recent years, this group has focused on being a bridge between internal hospital clinical staff and external community-based providers to ensure that patients have the resources that they need to remain in the community. The Cross-Continuum Group is comprised of multidisciplinary care team members that review various barriers to care and system change efforts to reduce readmissions and other access issues. Since 2008, this Group has conducted safety huddles, focused on care transitions and addressed key quality issues, such as patients with wounds that are transferred from skilled nursing facilities and how to best care for them. These efforts have improved patient outcomes and experience by adapting policy changes and ensuring appropriate patient flow through pathways. The Partners Skilled Nursing and Hospice Collaboratives are working to develop criteria for participation in this group.

NWH has an Extended Care Roundtable comprised of NWH, NWPHO and post-acute leaders, including local skilled nursing facilities, home infusion and palliative care services. This committee focuses on the intersection between acute hospital and post-acute services. Transitions of care across the continuum, as well as a focus on supporting the geriatric patient population are issues the committee is seeking to address.

OBSERVATION UNIT

1. **Explain the current volume of patients (NWH patients vs those in CHTP) using the OU and how you anticipate that volume changing with the Proposed project.**

Patients are not directly admitted to NWH's Observation Unit ("OU") through the Community Hospital Transfer Program ("CHTP"). Rather, patients are transferred from Brigham and Women's Hospital ("BWH") and The Massachusetts General Hospital ("MGH") via the CHTP to medical/surgical beds on the inpatient floors at NWH. The OU serves as a mechanism to alleviate capacity issues on the inpatient floors by moving patients to the appropriate setting for care. This increased capacity on the inpatient floors allows for patients to be directly admitted through the CHTP.

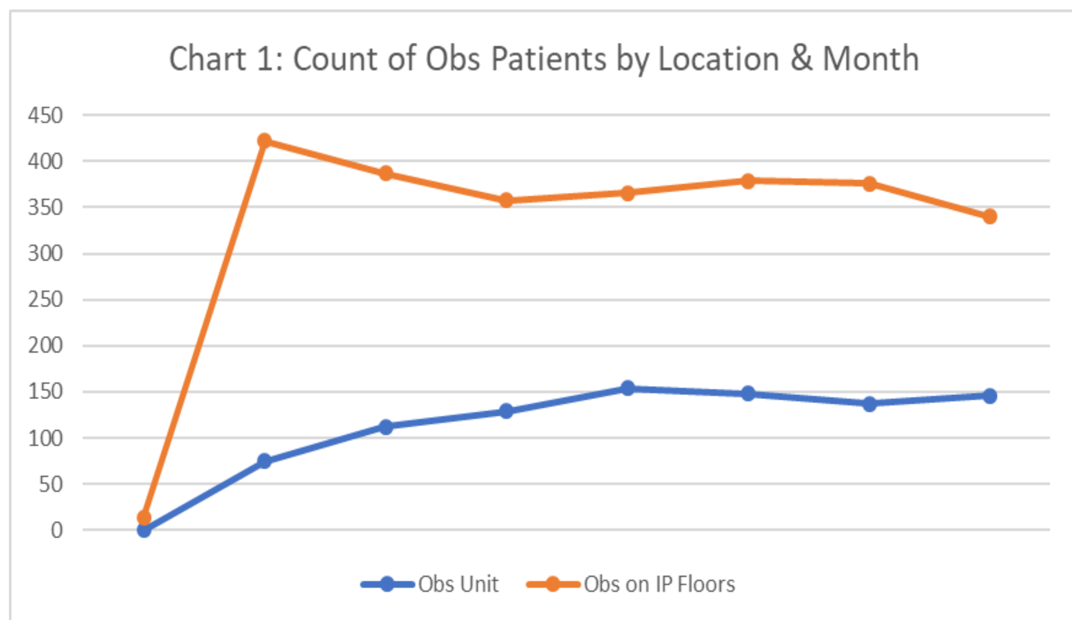
2. **In your Application you cite the need for this 8 bed OU due to capacity constraints on the inpatient floors (pg.1), in the ED (pg.7), and for other Partners Hospitals seeking to move patients to NWH medical/surgical (M/S) beds (pg.7). In order to better understand Patient Panel need for the Proposed Project:**
   a. **Provide current measures to illustrate capacity constraints, both before and after the temporary Observation Unit (OU) started, and how these measures will be improved through the Proposed Project (including, but not limited to the average number of hours in observation and percentage of observation patients transferred to inpatient beds).**

Below are data points illustrating the capacity constraints on NWH's med/surg units and in the ED.

Table 1 below illustrates a decrease in the number of observation patients on the med/surg units after the opening of the temporary OU in February 2019, allowing for greater capacity for higher acuity patients on the med/surg units, including patients that are transferred through CHTP.

Table 1: Observation Patient Volume in the Observation Unit and on the Inpatient Floors

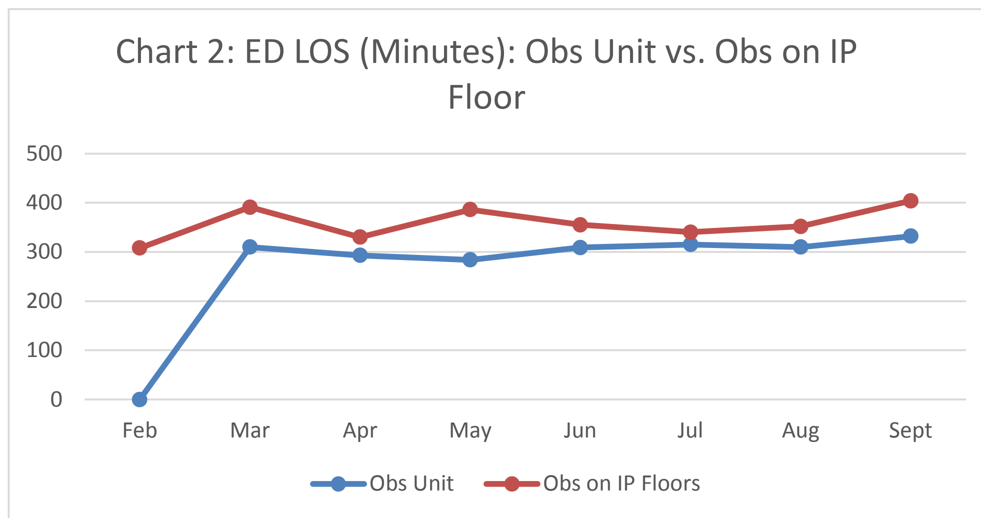
	Mar	Apr	May	Jun	Jul	Aug	Sept
Obs Unit	75	112	129	154	148	137	146
Obs on Med/Surg Units	422	387	358	366	379	376	340



As outlined in Table 2 and Chart 2, the temporary OU had a positive impact on patients waiting in the ED for an observation bed. Patients waiting in the ED for an observation bed wait anywhere from 25 minutes – 1.7 hours less when being moved to the OU instead of an inpatient bed. Accordingly, these shorter wait times for an observation bed allow for expedited triage and care for patients in the ED. These shorter wait times also impact quality outcomes and patients experience.

Table 2: ED LOS in Minutes: OU Patients vs. Observation Patients on IP Floors

	Mar	Apr	May	Jun	Jul	Aug	Sept
Obs Unit	310	293	284	309	315	310	332
Obs on IP Floors	391	330	386	355	340	352	404

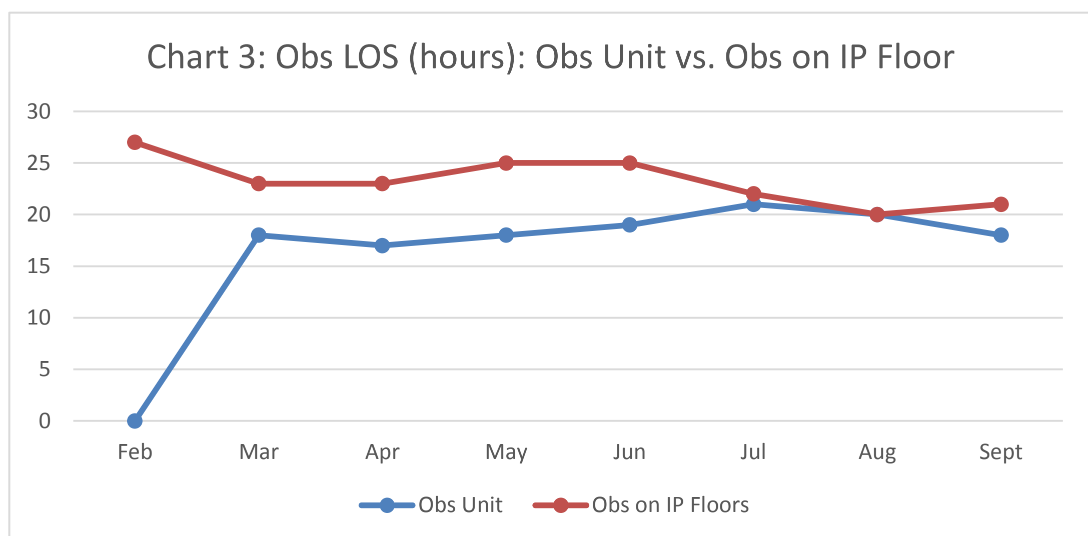


**The temporary OU opened in February, so the first full month of data is for March.

Table 3 illustrates that the temporary OU had a positive impact on observation patients' overall length of stay ("LOS"). Patients in the OU are at the hospital for fewer hours than those observation patients in an inpatient bed.

Table 3: Observation LOS in Hours – OU patients vs. Observation Patients on IP Floors

	Mar	Apr	May	Jun	Jul	Aug	Sept
Obs Unit	18	17	18	19	21	20	18
Obs on Med/Surg Units	23	23	25	25	22	20	21



**The temporary OU opened in February, so the first full month of data is for March.

3. In order to understand continuity and coordination of care, describe the discharge processes for observation patients.

Discharge planning begins at the time of admission for OU patients. At the time of admission to the OU, clinicians explain to a patient the reason for the OU stay, diagnostic and treatment plans, as well as an anticipated discharge date and time. An OU multi-disciplinary care team consisting of the patient's nurse, case manager, physician assistant, and physician, round together on a daily basis at the patient's bedside. During team rounds, all issues, including discharge date; time; and needs, including SDoH needs are discussed. Consequently, patients have ample time to ask questions of the care team and ensure there is a safe plan in place for discharge. Case managers assist patients with discharge needs such as arranging for a visiting nurse, planning for home equipment, as well as communicating with the outpatient care coordinating team. The nurse, physician assistant and physician provide patient and family education around the patient's principle diagnosis, medication changes, and post-discharge care plan. All patients receive an After Visit Summary which reiterates verbal discharge instructions. Transportation at discharge is arranged with the patient's nurse, case manager, and patient/family. Communication to outpatient providers is a priority of the medical team. Patients are asked to schedule a follow-up visit with their primary care physician ("PCP") in one to two weeks. The multi-disciplinary care team communicates with PCPs and selected specialists by Epic messaging, email, or fax. For select high risk groups of patients with outstanding issues, verbal communication to a PCP and/or specialist occurs.

4. Observation services may create barriers for Medicare patients' access to post-acute skilled nursing facility care, where they may face higher co-pays and/or may not be covered for care. How does the Proposed Project address this concern?

When a patient presents within NWH's emergency department, a physician must determine if the patient meets inclusion criteria for the observation unit, an inpatient bed or discharge. The Centers for Medicare & Medicaid Services ("CMS") define observation care as a specific, defined set of clinically appropriate services, which include ongoing assessment and reassessment and short-term treatment. This additional period of time allows a clinician to decide whether patients require admission, discharge, or transfer. "Per the Two-Midnight benchmark, hospital [inpatient] stays are generally payable under Part A[15] if the admitting practitioner expects the beneficiary to require medically necessary hospital care spanning two or more midnights, and such reasonable expectation is supported by the medical record documentation. Medicare Part A payment is generally not appropriate for hospital stays expected to span less than two midnights."[16] This means that Medicare will not pay for hospital stays that do not cross 2 midnights unless certain limited exceptions apply. Medicare has charged its administrative contractors with reviewing hospital inpatient (Part A) claims to ensure that at the time of admission, there is documentation in the medical record that supports a practitioner's judgment that the patient is likely to require care across at least 2 midnights. If the practitioner does not believe the patient will require this minimum length of stay, the patient is considered an outpatient. Accordingly, Medicare has placed controls on what patients may be considered admitted for reimbursement purposes.

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[15] Part A claims are for inpatient services.
[16] https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10080.pdf (last accessed 1/15/2020).

Well-defined inclusion criteria for the observation unit assures that only appropriate patients (clinically appropriate) are admitted to the unit. Placing a patient in the appropriate hospital setting is critical for a patient to receive the right care and ensure the least costly visit. Consequently, patients within the observation unit are continuously assessed to ensure inclusion criteria continue to be met, and when indicated, the patient is moved to the inpatient setting or discharged with appropriate consults for follow-up care. Ensuring that patients meet designated inclusion criteria while in the hospital leads to lower costs for a patient, as payers, such as Medicare, know the stay was clinically indicated and pay for the service.

Post-discharge, NWH seeks to ensure that a patient is placed in the proper setting to assure a continuum of care, prevent unnecessary readmissions and/or emergency department visits. Given that a patient's clinical indication places the patient in a specific setting – meeting inclusion criteria for observation or inpatient services – clinical staff do not have control over post-acute skilled nursing facility issues that may arise. Accordingly, clinical staff continually ensure the observation unit is the appropriate setting for a patient when criteria are met.

5. **Demonstrate how the Project will compete on the basis of price. You reference a study to show how the OU will create an alternative cost-effective care model to inpatient care at NWH (pg.15). Tell us how your contracts are structured with lead payers for observation services.**

As discussed within the DoN Narrative, a study conducted by Abbass, et al., found that "the cost associated with OU services is consistently lower compared with the cost associated with inpatient admissions for the study population. Within the study, more than 37% of the sample was admitted to inpatient units (n=5,890) versus 62.7% to OUs (n=9,961). The adjusted median cost of OUs was $5,411 ($4,652, $7,157) vs. $6,946 for an inpatient admission ($5,978, $18,683). The estimated adjusted cost saving of OUs was $1,535 (95% CI=$1,206, $1,411) compared with inpatient admissions."[17] Extrapolated data provide that the estimated annual cost savings to the U.S. healthcare system, if all U.S. hospitals adopted OUs for conditions that require short stay, to be $3.1 billion. A review of NWH's payer contracts found that observation unit rates are 28% less than inpatient rates, with the inpatient rate multiplier at 3.6. Accordingly, the addition of a permanent OU to NWH will create an alternative cost-effective care model to inpatient care for clinically appropriate patients, allowing for an overall reduction in provider costs within the healthcare market.

OBSERVATION UNIT – Second Question List

1. Explain why the current temporary observation unit cannot be made permanent.

The temporary observation unit was licensed in one of the existing post-partum units of the hospital as it met the physical plant requirements for observation space. The hospital is able to manage the temporary reduction in post-partum beds as it planned for the beds to be out of service during the time of year when there are typically fewer births. This plan allowed the hospital to implement this service while it constructed the permanent observation unit close to the ED. As part of this temporary use, the post-partum beds were placed out of service temporarily with the Department of Public Health ("Department) because the hospital

[17] Ibrahim M. Abbass, RPh, PhD et al., *Revisiting the Economic Efficiencies of Observation Units,* MANAGED CARE, Mar. 2015, https://www.managedcaremag.com/archives/2015/3/revisiting-economic-efficiencies-observation-units

continues to need the space for post-partum use during specific months when there are surges in the number of deliveries. As a result, the plan is for the hospital to re-activate the post-partum beds once the permanent observation unit is licensed to ensure adequate capacity for post-partum patients.

2. Explain why establishing a permanent observation unit in a new location is the optimal solution for addressing current and future Patient Panel need for these services.

The new permanent observation unit will be located adjacent to NWH's emergency department. The close proximity of the units will create better throughput for the area, as well as create operational efficiencies as patients meeting clinical observation unit inclusion criteria are moved to this unit for care. Prior to opening the temporary observation unit at NWH, all observation patients were transferred to inpatient floors for care, creating capacity constraints in the ED and other Partners' hospitals that were seeking to transfer appropriate patients to NWH's medical/surgical beds. The temporary observation unit has alleviated some of the capacity constraints on the inpatient floors, allowing many observation patients to be cared for in a distinct unit. The co-location of observation patients in one area of the hospital has created operational efficiencies, including expedited discharge processes for these patients. Accordingly, the proposed creation of a permanent observation unit near the ED will allow NWH to increase access to these necessary observation services and ensure the hospital can meet future demand by its aging patient panel. Finally, as previously discussed, the temporary unit occupying the post-partum beds is not a long-term solution given the need for post-partum services in the space.

ENDOSCOPY SERVICES

1. **You state the 6.8% increase in number of patients seeking endoscopy services over the past three years. Outline which specific endoscopy services that are responsible for this increase.**

The growth in patients receiving endoscopic procedures at NWH is largely driven by the following types of endoscopy procedures:

Procedure Type	% of Total Endoscopy Procedures
Colonoscopy	73%
Endoscopy	14%
Esophagogastroduodenoscopy	7%
Sigmoidoscopy Flexible	2%
Endoscopic Ultrasound	1%
All Other	3%
Total endoscopy	100%

2. **We are unclear how the increased demand for endoscopic procedures overall relates to the foci of this project component (expansion of the ERCP room for endoscopic fluoroscopy services & manometry services). While we understand the proposed renovations will reduce wait times for "elective procedures," explain**

a. which procedures you are referring to

Currently, NWH has eight endoscopy rooms that handle endoscopic procedures and an ERCP Room that is licensed only for ERCP procedures. Due to increasing demand for endoscopy services at the hospital, the eight endoscopy rooms on average are operating at approximately 90% capacity. Accordingly, to increase capacity for these services, NWH is seeking to convert its ERCP-only room into a full endoscopy room, which will allow this space to address the increase in ERCP volume, provide fluoroscopy endoscopy (which is currently provided in one of the eight endoscopy rooms), as well as allow for excess volume from the other endoscopy rooms to be filtered to this lager, anesthesia-equipped endoscopy space. By expanding overall endoscopy capacity, NWH will reduce the wait times for endoscopic procedures in the other eight endoscopy rooms.

Furthermore, manometry services are currently provided in a bay setting at the hospital, which is not ideal for patient experience. To address capacity constraints for manometry services, NWH will be renovating a current storage unit, so that these procedures may be provided in a larger space, increasing patient experience and satisfaction.

b. how expansion of the ERCP room for endoscopic fluoroscopy services as well as manometry services will reduce these wait times for such procedures

As discussed in the response to question 2a, by expanding the ERCP-only room to provide overall endoscopy services, NWH will reduce the wait times for endoscopic procedures in the other eight endoscopy rooms.

c. the measures you are using to assess current appointment wait times, and how wait times will be reduced through this project component

NWH utilizes the hospital's collaboration with a clinically-affiliated[18] private GI physician practice to obtain wait time data on endoscopic procedures as this group is responsible for scheduling most of these procedures at the hospital. NWH only becomes involved in scheduling endoscopic procedures when there is an urgent or emergent need. Accordingly, the hospital will not be measuring wait times; rather the physician practice reviews wait times.

3. What other criteria were used to determine that the endoscopy suite was experiencing capacity constraints? Provide quantitative data showing current trends and how it is anticipated those trends will improve with the new expansion.

Hospital utilization rates for all endoscopy rooms at NWH provide that on average these rooms are approximately 90% full (89.89%). With endoscopy volume projected to increase, the endoscopy rooms will soon meet and then exceed capacity. Operation at 90% capacity makes it increasingly difficult for NWH to accommodate urgent and emergent cases without delaying or rescheduling elective cases as the schedule is nearly full each day. With the projected continued growth in the demand for these services (as described in the DoN narrative), this increasing volume will continue to be a problem, impacting timely access for elective cases.

4. How will you evaluate "higher quality outcomes" resulting from the expansion of endoscopy services? (pg.24, pg.37)

[18] The clinicians have surgical privileges at the hospital.

a. What measures or quality indicators will you use, other than patient satisfaction and improved patient flow?

NWH will review the following measures to access higher quality outcomes resulting:

1. Adenoma Detection Rate: Percentage of procedures among patients age 50 and over undergoing screening colonoscopy with a finding of at least one conventional adenoma or adenocarcinoma detected.

   GIQuIC Benchmark: 33.9% for women; 46.9% for men
   a. NWH baseline and projections for women:
      i. Baseline: 20%
      ii. End of Year One Goal: 22%
      iii. End of Year Two Goal: 24.2%
      iv. Ending of Year Three Goal: 26.6 or 27%
   b. NWH baseline and projections for men:
      i. Baseline of 33%
      ii. End of Year One Goal: 34.6%
      iii. End of Year Two Goal: 36.4%
      iv. End of Year Three Goal: 38%

2. Appropriate Follow Up Interval for Normal Colonoscopy in Average Risk Patients (age 50 to 75): Percentage of procedures among average-risk patients aged 50 to 75 years undergoing screening colonoscopy without biopsy or polypectomy with a recommended follow-up interval of 10 years for repeat colonoscopy documented in the colonoscopy report.

   GIQuIC Benchmark: 87.9% for women; 89.2% for males
   a. NWH baseline and projections for women:
      i. Baseline: 70%
      ii. End of Year One Goal: 73.5 %
      iii. End of Year Two Goal: 77 %
      iv. End of Year Three Goal: 81%
   b. NWH baseline and projections for men:
      i. Baseline: 75%
      ii. End of Year One Goal: 78.7%
      iii. End of Year Two Goal: 82.6%
      iv. End of Year Three Goal: 87%

3. Repeat Screening or Surveillance Colonoscopy Due to Inadequate Bowel Prep: Percentage of colonoscopies with an inadequate/poor bowel preparation with a recommendation for a repeat screening or surveillance colonoscopy of one year or less.

   GIQuIC Benchmark: 36.2% for women; 36.6% for males
   a. NWH baseline and projections for women:
      i. End of Year One Goal: 48%
      ii. End of Year Two Goal: 50%
      iii. End of Year Three Goal: 52%

b. NWH baseline and projections for men:
   i. End of Year One Goal: 64%
   ii. End of Year Two Goal: 65.5%
   iii. End of Year Three Goal: 67%

5. In order to understand continuity and coordination of care for endoscopy patients, please describe post procedure follow-up, including linkages to the primary care provider.

Post-procedure and prior to discharge patients are rounded upon and provided with appropriate discharge paperwork. These materials remind the patient to schedule a follow-up appointment with their primary care physician. Additionally, educational materials are provided to patients alerting them to important issues and information, such as what to do if they feel ill upon going home, etc. Moreover, to ensure a continuum of care, a patient's discharge plan includes any linkages to community resources that NWH staff need to facilitate. A summary and findings also are sent to a patient's referring physician.

6. If CRC screenings are indeed a part of this Proposed Project, as we assess public health outcomes, describe how NWH is addressing appropriate CRC screening rates and rescreening rates for the entire Patient Panel, as well as reducing risk factors for colorectal cancers in the community.

Typically, the need for CRC screening is tracked and ordered by a patient's primary care physician ("PCP"). PCPs within the Newton-Wellesley Physician Hospital Organization ("NWPHO") track a CRC quality metric to ensure patients receive their necessary screenings. Currently, of the 51,944 patients that fall into this measure, approximately 80% (78.5%) have met the measure either clinically or with a modifier. A modifier is applied if the patient is terminally ill, has advanced dementia, is not a candidate for colon cancer screening, etc. PCPs are educated on this importance of this measure to ensure patients are receiving appropriate screenings.

In regard to rescreening, if a critical test value is observed as part of CRC screening, the PCP will alert the patient to the need for rescreening or further follow-up.

To educate the entire patient panel on the importance of CRC screening, NWH has developed a page on its web site devoted to colonoscopy – what the screening entails, what it shows and the importance of adhering to screening guidelines. Additionally, NWH offers health fairs that discuss the importance of these screenings.

7. In order to support your claim of reductions in costs and TME, how do you anticipate tracking savings from improved patient access to high-quality endoscopy services?

As discussed in the Determination of Need Narrative, the evolution of endoscopy from a purely diagnostic tool to a therapeutic resource has impacted its use in a considerable way.[19] Advances in endoscopic

[19] C. Loras et al, *Study of the standard direct costs of various techniques of advanced endoscopy. Comparison with surgical alternatives*, 50 DIGESTIVE AND LIVER DISEASE 7, 689-698 (July 2018).

techniques, such as endoscopic retrograde cholangio-pancreatography ("ERCP"), endoscopic ultrasound ("EUS"), and enteroscopy have turned the endoscopic pathway into an alternative to surgery for some pathologies."[20] A comparative study on the differences in costs between endoscopic procedures and corresponding surgical alternatives indicates that out of the 33 advanced endoscopic procedures reviewed – 57% of the time, the cost of the endoscopic procedure was anywhere from two to five times less than the costs for the equivalent surgical alternative.[21] Moreover, studies have found that these endoscopic techniques are as therapeutic (and in some cases may even be more therapeutic) than the analogous surgery, with fewer side effects and less complications.[22] Patients experiencing fewer complications have lower rates of readmission, fewer physician visits and faster recovery periods. Accordingly, endoscopy is considered a lower-cost alternative than traditional surgical options for many applications, lowering provider costs, payer costs, and out-of-pocket expenses for patients, leading to an overall reduction costs, while achieving high quality outcomes. Although endoscopy is lower-cost option, it is challenging for NWH to know whether a patient is forgoing a more expensive surgical procedure to receive an endoscopic procedure. Accordingly, it is not feasible to measure these costs savings due a lack of available data.

However, the Proposed Project will allow NWH to address physical plant constraints that cause delays in care. Through the Proposed Project, NWH is seeking to expand endoscopy services in the following ways: (1) expand the use of the ERCP room to perform fluoroscopy and other endoscopic procedures; and (2) convert a general storage room to clinical space to offer additional manometry services. The expansion of the ERCP-only room will allow NWH to meet the growing demand for endoscopy procedures at the hospital and reduce the 12-week wait time that currently exists for an elective endoscopic procedure.

SPECIAL CARE NURSERY

1. **In order to understand capacity constraints in the SCN and Patient Panel need for additional capacity, provide the following data over the last <u>3 years</u> (if you don't have data, explain why not)**
    a. **% of patient transfers into the SCN that were deferred:**

NWH has not routinely collected data on deferred transfers over the last three years. However, this data is now being collected. Accordingly, from August – November, 5 infants were deferred transfer. Additionally, if the SCN reaches a census of 12 or greater, obstetrics patients that are less than 36 weeks gestation or those patients deemed "high risk" must be transferred to another hospital to ensure the mother and baby may be properly cared for with the appropriate equipment. Accordingly, although the NWH SCN has an average daily census of 10.2 patients, this figure does not represent all of the mothers and babies that required transfer to ensure appropriate care.

Table 4 outlines the average daily census when it is greater than 9 within NWH's SCN. July 2019 saw the largest average daily census since October 2018. Table 5 depicts the increase in overall average daily census in NWH's SCN over the last ten years.

[20] *Id.*
[21] *Id.*
[22] *Id.*

Table 4: Average Daily Census >9 for the Last Six Months

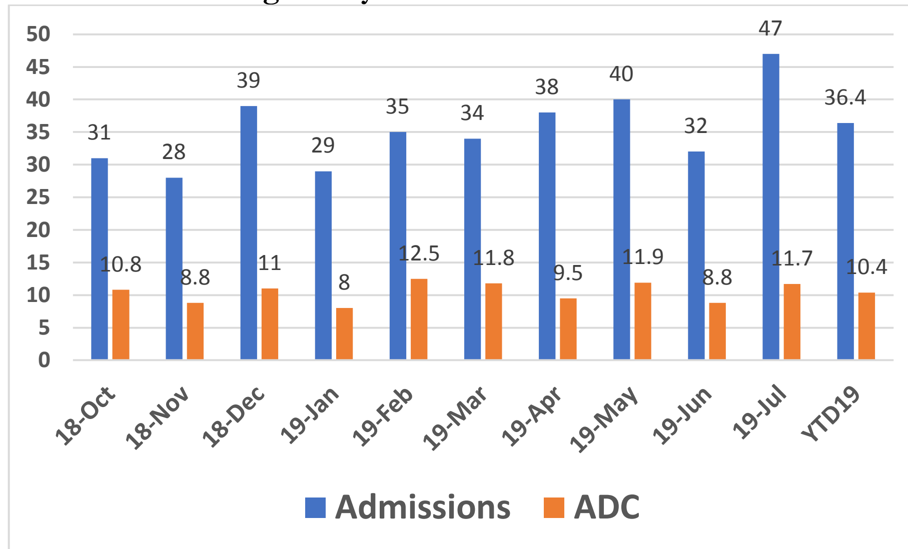
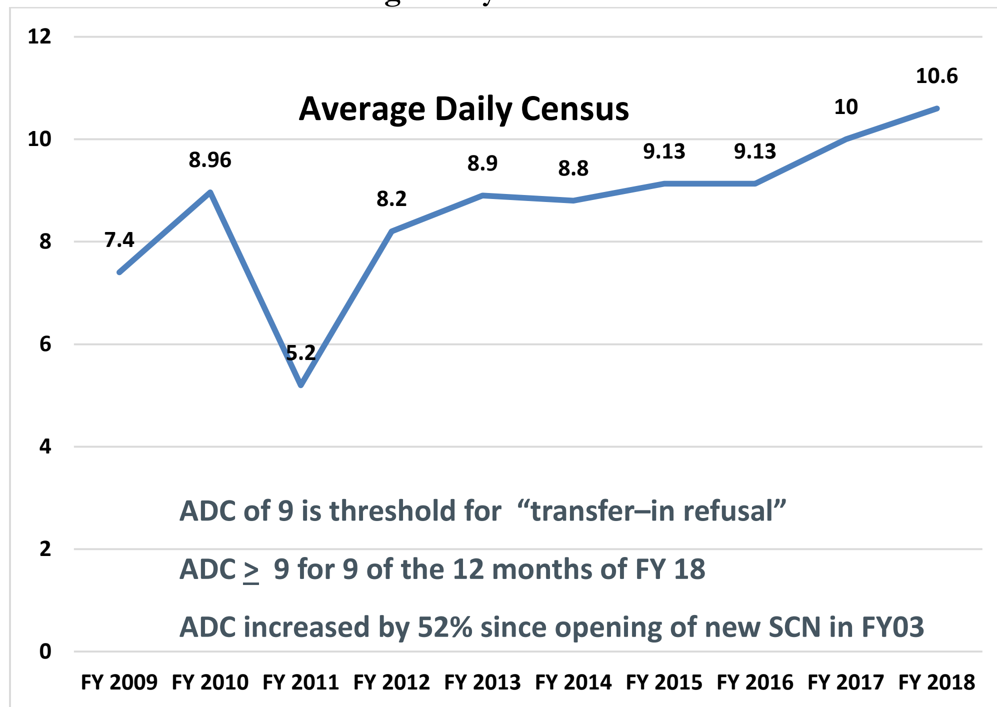


Table 5: Average Daily Census for NWH's SCN



1b. % of patients that were transferred to another hospital?

Figure 1 below provides the number of neonatal SCN admissions, as well as transfers in and out of the hospital. Approximately 11-13% of NWH neonates were transferred. Transfers out of the facility were due

to the acuity level of a patient or to a lack of SCN beds. As noted in the DoN, at times, NWH experiences "surges" of patients in need of SCN care. When the census within the unit reaches 9 patients or greater, direct transfers into the SCN from other area hospitals are prohibited to ensure that patients arriving at NWH for delivery can be accommodated and allow for SCN babies to not be transferred out and separated from the mother. Furthermore, if the SCN reaches a census of 12 or greater, obstetrics patients that are less than 36 weeks gestation or those patients deemed "high risk" must be transferred to another hospital to ensure the mother and baby are kept together after delivery.

Figure 1: NWH SCN Admissions, Transfers In and Out

Additionally, the following maternal transfers due to SCN capacity constraints occurred over the last three years:

- 2017: 9 maternal transfers:
- 2018: 8 maternal transfers (approximately)
- 2019: 10 maternal transfers, 5 neonatal transfers (approximately)[23]

Please note, maternal transfers due to acuity are not represented in this graphic.

1c. Average length of stay in the SCN

As outlined on the Change in Service Form, the average length of stay in the SCN is 12.3 days.

2. How will these data be improved through the Proposed Project?

The additional 4 SCN bassinets will allow NWH to accept more transfers from outside hospitals. Through the Proposed Project, NWH will be able to accept transfers to the SCN any time the unit has <12/13 babies instead of 9. Moreover, the addition of 4 SCN bassinets will allow NWH to keep obstetrics patients and newborns together instead of closing to new SCN admissions once a census of 12 is reached.

[23] NWH began tracking neonatal transfers in 2019 and exploring ways within the Hospital's electronic health record to track this information.

3. **How will you evaluate improved patient outcomes as a result of increased access to SCN services (pg. 24); and what measures or quality indicators will you use, other than patient satisfaction?**

The Obstetrics and Maternal-Fetal-Medicine (OB/MFM) practice at NWH is for high risk patients with complicated medical histories. Having these patients close to their OB and proximity to home allows for:

- Continued care for mothers with their primary NWH OB;
- Increased breast feeding rates and early discharge; and
- Ability for parents to partake in family centered rounds.
-

Several QI initiatives are ongoing at NWH and align with the SCN expansion.

- **Short term mechanical ventilation:** NWH SCN has a DPH waiver (since March 2009) to initiate mechanical ventilation in infants of 32-36 weeks GA with respiratory distress syndrome (RDS) and adapting early initiation of CPAP and the intubate/surfactant/extubate (INSURE technique); these interventions decrease the time a patient requires respiratory support. While this is an ongoing therapy, availability of beds has been a rate limiting factor in how many of these babies may remain at the hospital. The expansion of the SCN with new beds, allows us to care for these babies at NWH, prevent transfer and ensure mother/child are kept together. QI measures include a) reduction in duration of respiratory support; b) time to initiate oral feeds; and c) time to discharge.
- NWH is in the process of initiating a pilot project to assess infants >35 weeks GA at risk for early onset sepsis. The goal of the project is to reduce sepsis in babies and decrease antibiotic exposure in neonates. This intervention has recently been supported by the American Academy of Pediatrics. The pilot involves a scoring system to assess the infection risk with emphasis on increased monitoring during this time. Having additional SCN beds will enable us to safely monitor these babies and not expose them to unnecessary laboratory testing and antibiotics.
- **Narcotic exposed babies:** At NWH, clinicians see ~8-10 babies per year with Neonatal Abstinence Syndrome (NAS). The hospital plans to adopt a new protocol to treat these infants. It is a combined effort involving post-partum, SCN and pediatric floor staff. The main goal of the program is to keep the mom/family-baby dyad together, family is an important part of the care team, use of non-pharmacologic interventions, and reduction in use of medications thereby reducing length of stay in the hospital, durations of medication use (if needed) and better preparedness from the family to handle these infants at home. Again, having the additional beds in the SCN will facilitate the initiation of medications (if needed) and facilitate transfer to the pediatric floor where mom/family and baby can remain together.

4. **In order to understand continuity and coordination of care, describe the discharge planning process for the special care nursery, including for any type of "high risk" infants (such as those with neonatal abstinence syndrome (NAS)**

Many of the mothers that deliver at NWH receive a prenatal neonatal consult, which includes a discussion with high risk patients explaining the hospital stay and discharge criterion, as well as anticipated length of stay. This visit includes a tour of the unit if desired. Upon admission to the NWH SCN, the discharge process begins. The SCN has unlimited visiting for parents and staff encourage patients to participate in daily rounds to discuss their plan of care as it evolves during their infants stay. We ask families to be "hands on" in the care- feeding, mixing milk, administering medications, demonstrate a bath, etc. These processes are done to ensure patients are comfortable and capable of caring for their baby at home. Staff also utilize a discharge checklist that is completed as education milestones are met.
As a patient's discharge date approaches, clinical staff provide education of CPR, when to call the doctor, review all medications and formula recipes, safe sleep, and car seat safety. Staff set up and review all follow up appointments including their first visit with their pediatrician 1-2 days from discharge. NWH's Neonatologists call the infant's pediatrician to give a verbal sign out. Many pediatricians in the area can visualize the after visit summary in EPIC, but if they cannot, staff fax a copy to their office.

For high risk infants, the aforementioned processes are carried out, as well as referrals to the patient for VNA, NICU developmental follow up clinic, feeding specialists & nutrition follow up. Additionally, support groups are provided by social workers, such as Fragile Beginnings and patients are made aware of these opportunities. NWH also is in the beginning stages of implementing an eat, sleep, console ("ESC") model for infants at risk for neonatal abstinence. This program works with families to keep the mother and baby together during the withdrawal period. The education for these families begins preterm and lasts throughout the hospital stay. The ESC program decreases length of stay and sets up families for success outside of the hospital setting.

5. **In considering public health outcomes, you state that Massachusetts has a preterm birth rate of 8.9% with overall rates worsening in the past 10 years. We also understand that preterm birth in Massachusetts varies by race/ethnicity, with Black non-Hispanics having the highest rates. Describe any initiatives currently underway by PHS and/ or NWH to address these disparities**

Studies provide that the primary reasons for preterm birth are: 1) poor nutrition before and during pregnancy; 2) smoking, using illegal drugs, or drinking too much alcohol during pregnancy; 3) certain infections, such as urinary tract and amniotic membrane infections; 4) premature birth in a previous pregnancy; 5) an abnormal uterus; and 6) weakened cervix opening early.[24] Accordingly, one avenue for reducing the pre-term birth rate is to ensure that all patients, including those facing disparities, have access to consistent pre-natal care during pregnancy. Access to pre-natal care during pregnancy allows an obstetrician to discuss with all patients the importance of adherence to certain standards during pregnancy. NWH staff ensure that all patients have access to robust pre-natal care. Furthermore, both MGH and BWH have community health centers that provide obstetrics services to vulnerable and diverse populations.

In regard to post-partum initiatives that assist in addressing disparities for families and neonates, NWH is joining the Massachusetts Statewide NeoQIC Collaborative on Family Engagement. Funded by the W.K. Kellogg Foundation, this Collaborative brings together staff from Level II and III NICUs to integrate the work of the Safe Sleep and Human Milk collaboratives with an emphasis on increased engagement with families. The Collaborative is focused on addressing barriers to family communication, increasing access to social supports, increased family engagement in care, involving parents in NICU structures and reducing

[24] https://www.healthline.com/health/pregnancy/premature-infant

disparities in race/ethnicity or language-status.

PSYCHIATRIC UNIT

1. **In order to understand how the Proposed Project component will improve patient outcomes, describe**
   a. **the anticipated impact of the improved rooms on patient outcomes (e.g. suicide prevention) how you will measure improved patient outcomes.**

As discussed in the DoN Narrative, the implementation of a ligature-resistant environment within the NWH Psychiatric Unit will have a positive impact on health outcomes and patient experience as addressing these physical plant requirements will create a safe environment within the unit for patients experiencing suicidal ideation. When developing this new standard, TJC convened an expert panel that reviewed the impact of a ligature-resistant environment on psychiatric units; the overall outcome was a reduction in the number of suicides within these areas. Accordingly, NWH anticipates that implementation of these standards within NWH's Psychiatric Unit will ensure patients are in a safe environment consistent with standards of care, improving health outcomes and reducing suicides.

Upon implementation of the Proposed Project, to measure improved patient outcomes, NWH will compare (by percentage) the following measures to previous years: 1) the reportable incidents of self-injury behavior; and 2) the number of reportable suicide attempts/gestures.

   b. **how exercise and weekly medication classes will be incorporated into care in the unit**

The new exercise space will allow NWH to offer medication education classes once per week and assist in patients' treatment, allowing these individuals to participate in daily exercise, including yoga via a newly created yoga studio. Daily exercise programs and medication classes will be incorporated into current psychiatric unit programming by March 2020 for clinically appropriate psychiatric patients. NWH estimates that over the course of a week, 50% of psychiatric patients will have access to and utilize these resources in conjunction with other psychiatric unit programming.

Furthermore, the renovation of NWH's psychiatric unit will allow for increased access to conference rooms, allowing for improved privacy when patients are interacting with clinicians. Patients also will have improved access to sensory tools and space to assist in symptom management. All psychiatric patients will have access to these benefits in the renovated unit.

   c. **the average LOS for Unit patients, and how that may impact the use of these new services.**

As noted on the Change in Service Form, the average length of stay for NWH's psychiatric unit is 13.7 days. If clinically indicated, all psychiatric patients will have access to the new exercise space, as well as the additional meeting space (a designated sensory area). The new exercise space will allow NWH to offer medication education classes once per week and allow these individuals to participate in daily exercise, including yoga via a newly created yoga studio. Accordingly, the proposed project will provide NWH's psychiatric patients with an alternative form of therapy through exercise. The hospital does not anticipate a measurable change in LOS directly resulting from exercise and medication classes.

2. **If not otherwise explained above, explain how patient outcomes and quality of life will be improved, other than decrease in restraints and satisfaction with weekly education sessions.**

Patient satisfaction with psychiatric services influences multiple areas of patient care including treatment adherence and outcomes.[25] Consequently, given the importance of patient experience and satisfaction with psychiatric services, NWH tracks measures associated with patient experience. The hospital currently measures patient satisfaction with medication education. Currently, NWH scores below 4 on a Likert scale regarding satisfaction with medication education and plans to improve to above 3 over the next 6 months with the addition of these resources. NWH staff monitor these indictors monthly in Quality Improvement (QI) team meetings. With the addition of exercise space, NWH staff anticipate increasing satisfaction scores on a consistent basis related to positive group experience.

3. **In order to understand Patient Panel need, provide the following**
   a. **The types of beds in the psychiatric unit (Mental health and SUD diagnoses?)**

NWH has 45 beds in its psychiatric unit licensed to provide inpatient psychiatric services. The unit provides care to patients with a primary psychiatric diagnosis and also care to patients who have co-occurring conditions.

   b. **Where patients admitted to the psychiatric unit are coming from?**

Patients are coming from NWH's ED, as well as other from other hospitals.

4. **We note NWH psychiatric unit services provided on Hospital Compare and found that NWH performed lower on average than Massachusetts and at the national level on follow up care, based on three outcome measures[4]. Explain how NWH will improve continuity and coordination of care for Psychiatric patients as a part of this project.**

Upon discharge, NWH staff will continue to provide patients and/or families with documentation of the services that were provided during their inpatient stay. As with all patients, to ensure continuity of care, improved health outcomes and enhanced quality of life, NWH will continue existing formal processes for linking patients with their primary care physicians and specialists for follow-up care, as well as case management/social work support to ensure patients have access to resources around SDoH issues and any needs the patient may have post-discharge. Providing patients with linkages to these necessary services prevents unnecessary readmissions, especially for psychiatric patients, ensures appropriate care management and provides the patient with the resources for leading a better life. Moreover, patients at NWH will benefit from the hospital's PHM strategies, including an existing system of care coordination and care delivery alternatives aimed at improving patient experience and outcomes.

5. **In terms of health equity, we note that the percentage of Black/African Americans is 2.9% of NWH's total patient panel; yet it is 6.7% of the Psychiatric Unit. Explain any initiatives you are using, or plan to use, to address any identified utilization disparities in the Psychiatric Unit.**

[25] Hindawi Psychiatry Journal Volume 2019, Article ID 5076750, 7 pages https://doi.org/10.1155/2019/5076750

In regard to overrepresentation by African Americans in NWH's psychiatric unit, there are a number of factors that may contribute to this phenomenon. First, 6% of NWH's psychiatric patients do not come from the NWH patient panel, rather they are transferred to the NWH psychiatric unit from other hospitals due to the lack of psychiatric bed availability across the state. Accordingly, the transfer of non-NWH panel patients to NWH's psychiatric unit more than likely contributes to the larger number of African Americans obtaining services in the psychiatric unit. Second, the majority of patients that are admitted to the psychiatric unit are seen in the ED prior to admission. There are several studies that indicate African Americans/Blacks have a higher utilization rate of the ED due to certain factors, including mistrust of outpatient services, a lack of primary care provider and/or convenience, etc.[26] Moreover, there are additional studies that provide that mistrust by this population of psychiatric care and providers, as well as cultural stigma may result in exacerbated mental health conditions that reach crisis levels, and therefore, result in higher levels of acuity and the need for inpatient care. [27]

Additionally, there are studies showing disparities between African Americans and their white counterparts with barriers to accessing psychiatric care. To ensure patients have access to appropriate resources, including for psychiatric conditions, NWH has PHM programming. Similar to other Partners' hospitals, for its highest risk and most complex patients, NWPHO's clinical staff offer the Integrated Care Management program ("iCMP"). Although not specific to psychiatric patients, iCMP provides all eligible, complex patients with a nurse care manager who develops a care plan in tandem with the patient and other members of the clinical team. The care manager works in-person and telephonically to coordinate a patient's care and ensures patients are not readmitted to the hospital when possible. This nurse care manager assists patients in addressing disparities to ensure appropriate care. The care manager connects patients with community–based resources that are vital for recovery. Accordingly, these efforts should assist eligible patients, including African American/Black eligible patients with resources to access psychiatric services.

Furthermore, to ensure all patients have access to behavioral health services, NWPHO Primary Care Practices offer a variety of services for patients within the primary care, medical management context. NWH staff seek to support patients whose needs are appropriate to be supported in primary care, and link patients who have serious mental illness to community-based health services. These services are payer blind and include:

- Behavioral Health Resource Finding Support: NWH's primary care clinicians are able to submit an e-consult request to NWH's Community Resource Specialist (CRS) requesting therapy and/or psychiatry services, which are insurance appropriate, within the patient's geographic footprint and have appointment availability. Staff then provide a patient with a list of these services. Patients are provided this information by any of the following mechanisms: 1) telephone call, 2) patient gateway, or 3) mail. If there is any issue communicating this information, NWH staff provide the list to the requesting provider and ask that he/she share with the patient.

[26] https://ps.psychiatryonline.org/doi/full/10.1176/ps.2009.60.6.779
[27] *Id.*

- Behavioral Health Coaching: NWH has a team of coaches with a background in mental health, who at the request of the PCP, engage patients in a time limited, goal-focused series of visits over 12 weeks. Coaches work with patients who have behavioral health issues that are appropriate for management in the primary care setting, such as depression, anxiety, insomnia, grief, etc. providing cognitive behavioral education and support. Visits can either be telephonic, face-to-face or virtual through an internet-based web application.

- Social Workers: NWH's LCSW/LICSW team supports our PCPs and patients in assisting in management of psycho-social issues, as well as providing support to our behavioral health Coaches. These staff work with our RN care managers to provide longitudinal support, may work with our providers to address immediate patient concerns and may bridge a patient – meaning they provide brief, supportive counseling with the goal of assisting a patient in engaging outpatient mental health services.

Other Partners entities have programming in place to address disparities around behavioral health. For example, McLean Hospital's Office of Public Affairs in partnership with the American Foundation for Suicide Prevention, the International OCD Foundation, Massachusetts Association for Mental Health, the National Alliance on Mental Illness and PROJECT 375 has developed the "Deconstructing Stigma: Changing Attitudes About Mental Health" campaign. This campaign is a series of larger-than-life photographs and interviews with people from across the United States and beyond who have been affected by mental illness. Since the campaign's initial physical installation at Boston's Logan International Airport, it has traveled the world with pop-up installations across the United States and in all inhabited continents except Australia. The installations, website, education and outreach efforts, and the companion books serve to capture the complexity of living with a psychiatric disorder, seeking treatment, navigating insurance and healthcare systems and facing stigma.

Told through the eyes of its participants, Deconstructing Stigma boldly tears down the misconceptions of what those with mental illness look like. The volunteers in this project are more than just statistics or nameless faces. They are mothers, fathers, wives, husbands, lawyers, doctors, engineers, musicians, and more. Each one has been affected by mental illness and each one also has faced stigma.

Deconstructing Stigma has been translated into 10 different languages and currently has a footprint in the United States, Ecuador, England, Spain, Pakistan, India, Ghana, Kenya, and Israel. The focus of the campaign is to reduce the stigma of mental health and encourage individuals – particularly those in underserved populations – to recognize that mental health conditions are common and treatable. In addition, we have developed a curriculum for mental health professionals in emerging markets in an effort to improve the delivery of mental health care in areas of the world, including parts of the U.S., that historically have limited mental health resources.

Through its collaboration with the NAACP, McLean Hospital is working to reduce mental health stigma among Boston's African-American populations, while educating the community about signs and symptoms of common psychiatric disorders and encouraging individuals to seek treatment. The hospital has worked with the NAACP to host wellness events in Roxbury and Dorchester, has developed a Resource Guide to Mental Health for the African American community, and has started

working with clergy based in Mattapan, Roxbury, and Dorchester to educate them about mental health and provide them with the tools that they need to assist their parishioners in finding professional help.

In 2019, McLean Hospital

- Educated more than 32,000 school children in the U.S. and abroad about mental health and the brain;
- More than 5 million people have seen/interacted with the Deconstructing Stigma physical exhibits – the largest being at Boston Logan Airport; and
- Exposed approximately 5,000 people a week to mental health education via the Deconstructing Stigma podcast Mindful Things.

CARDIAC CT SCANNER

1. **Will the equipment be utilized at full capacity? How many scans per year are needed to reach full capacity?**

At full capacity, the cardiac CT can accommodate 6 scans per day or approximately 1,560 scans per year. Consequently, as NWH begins "ramp-up" of the cardiac CT, in Year 1, the machine will operate at 32% capacity with 500 scans. In Year 2, capacity will increase to 64% with an additional 500 scans (1,000 scans overall for the year). The projected volumes of 500 scans in Year 1 and 1000 scans (annually) in Years 2-3 are conservative estimates given the ramp-up period.

As stated, this test will allow patients to avoid more invasive procedures and given the rise of coronary artery disease, more minimally invasive procedures are necessary to provide quality care and lower overall healthcare costs.

2. **Provide estimated use of the equipment for both inpatient and outpatient use.**

Estimated inpatient utilization of the CT is 25%,outpatient utilization is 25% and ED utilization is 50%.

3. **In order to understand continuity and coordination of care, describe how outside providers gain access to these images and /or reports.**

Outside providers gain access to images/reports via NWH's established procedure for accessing this data. The Image Service Center furnishes such materials on appropriate media upon request.

4. **In order to understand Patient Panel need for the Proposed Project Component, describe Patient Panel need for the Cardiac CT for Angiography by outlining anticipated patient need (based on CVD rates, risk factors, or any other need.)**

Table 6 outlines the 10-year projected volumes for certain cardiac conditions for adults living in NWH's primary and secondary service areas. These projections demonstrate the need for a cardiac CT.

Table 6: 10-Year Projected Volumes for Certain Cardiac Conditions

	2017	2027	%

			Change
Cardiac Anomaly	1,603	2,088	30%
Carditis and Cardiomyopathy	13,177	17,204	31%
Chest Pain - Noncardiac	59,221	66,177	12%
Complication of Device, Implant or Graft - Cardiovascular	628	797	27%
Congestive Heart Failure	50,611	74,908	48%
Coronary Heart Disease	64,017	80,972	26%
Dysrhythmia and Cardiac Arrest	115,694	158,981	37%
Heart Valve Disease	24,430	31,958	31%
Myocardial Infarction	4,634	6,040	30%
Peripheral Atherosclerosis and Aneurysm and Other Circulatory Disease	38,133	54,530	43%
Pulmonary and Other Heart Disease	14,835	19,463	31%

The aforementioned 10-year projections were generated by Sg2. Sg2 is a Vizient company and the health care industry's premier authority on health care trends, insights and market analytics. Sg2's "Impact of Change" Forecast spans across both the inpatient and outpatient settings, and is modeled at the disease level, driven by 6 distinct Impact Factors: 1) Population: estimates the impact of population growth; 2) Epidemiology: quantifies expected changes in disease incidence and prevalence rates; 3) Economics and Consumerism: accounts for micro-and macroeconomic factors and impact of price sensitivity; 4) Policy: measures impact of health care policy initiatives and insurance coverage shifts; 5) Innovation and Technology: examine new technology and clinical innovation that impact site of care, resources use and health management; and 6) Systems of Care: accounts for the impact of care coordination and provider integration across various care sites

5. **In order to understand Patient Panel need for the Proposed Project Component, outline the Center's existing diagnostic and interventional capabilities and percentage of its patients needing to transfer to BWH or MGH over the past 3 years.**

Existing diagnostic and interventional capabilities: exercise stress tests, exercise echocardiogram stress tests, nuclear exercise stress tests, pharmacologic nuclear stress tests and dobutamine echo tests. The hospital does not perform: coronary computed tomography angiography ("CCTA") or invasive coronary catherization/coronary angiography procedures.

Percentage of Patients in Need of Transfer: Over past 3 years, NWH clinicians have referred 1,000 cardiovascular procedures to MGH and BWH. Of these patients, approximately 500 were referred for diagnostic catherization. Additionally, approximately 360 of these patients were referred for Percutaneous

Coronary Intervention ("PCI") procedures. Another 50-75 patients per year were referred to MGH/BWH for CCTA procedures.

6. **You use two outcome measures (reduction in elective cardiac catheterization and reduction in the number of patients receiving nuclear medicine studies). Provide baseline data for these and how you hope they will improve.**

The following baseline and projections are included in the DoN Narrative, on page 29 for the measures noted above. Projections also are included to show the impact of the acquisition of the new Cardiac CT.

a. **Outcome Measure – Reduction in Elective Cardiac Catherization Procedures:** Currently, NWH does not have a cardiac catherization lab, and consequently, patients are referred to outside hospitals, such as BWH and MGH for these services. Upon acquisition of the Cardiographe, NWH will review how may elective diagnostic cardiac catherization procedures are referred to other hospitals by cardiologists.

Measure: Number of elective diagnostic cardiac catherization procedures that are referred to other hospitals by NWH cardiologists.

Projections: Baseline: 150; Year 1: 130; Year 2: 110; and Year 3: 90.

Monitoring: Reviewed quarterly by clinical staff.

b. **Outcome Measure – Reduction in the Radiation Risk of the Testing Modality:** NWH will review the number of nuclear medicine studies that cardiac patients receive post-acquisition of the new cardiac CT.

Measure: Number of patients receiving nuclear medicine studies conducted post-acquisition of the new Cardiographe.

Projections: Baseline: 1,028; Year 1:926; Year 2: 823; and Year 3: 720.

Monitoring: Reviewed quarterly by clinical staff.

7. **In order to understand improvements in public health outcomes, describe NWH programs to reduce risk of conditions that would necessitate the need for a cardiac CT (or lower chances of another heart event).**

NWH offers a number of prevention programs in cardiovascular health. The Elfers Cardiovascular Center at NWH comprises the hospital's Cardiovascular Disease Primary Prevention Program. This program uses a team-based approach to help patients lower their risk of heart disease. The team is comprised of cardiologists, registered nurses, exercise physiologists and registered dietitians. A patient's treatment plan is based on a number of risk factors, including age; gender; ethnicity and family history of heart disease. The team also educates patients on the dangers of obesity, diabetes, sedentary lifestyle, use and/or exposure to tobacco smoke. During a patient's first visit the team conducts the following tests: lipid profile, coronary calcium scoring, high-sensitivity C-reactive protein test, which measures inflammation levels and remote

blood pressure monitoring. Based on a patient's results, the team will determine what, if any, conditions a patient may have that could increase his/her risk for heart disease and work with him/her to address those conditions. Three of the most common conditions that can contribute to heart disease risk are high blood pressure, hyperlipidemia, and being overweight or obese. Consequently, NWH also offers nutrition counseling, weight loss surgery and blood pressure counseling.

Other prevention programming offered by NWH:

- The NWH Cardiovascular Health Center includes two programs:
  - The NWH Cardiac Rehabilitation Program is a medically-supervised healthy lifestyle and cardiac risk reduction program to help speed recovery from a cardiac event and improve long-term health. This exercise, education, and lifestyle modification program is appropriate for individuals who have recently had a myocardial infarction, angioplasty, heart surgery, or diagnosis of angina. This program is intended to ensure patients do not have repeat cardiovascular events.
  - The NWH Heart Failure Program ("CVHC") is a multidisciplinary clinic for patients with symptomatic heart failure. Referrals for this program come from inpatient admissions for acute onset heart failure and referrals from cardiologists and PCPs. This NP-based clinic offers disease management, education, exercise, and long-term follow-up. Nurses, dietitians and physical therapists are involved in the education and exercise components. CVHC had a total of 5,921 patient visits in 2018.
- Additional programs supported by the Division of Cardiology include:
  - NWH CV Prevention/Lipid Management Program is a multidisciplinary program staffed by NWH Cardiologists, with expertise in cardiovascular prevention and lipids who care for patients without established cardiovascular disease who wish to improve their heart health in an effort to reduce the risk of heart attack and stroke.
- Community outreach activities include:
  - NWH Cardiovascular Health Fair: The NWH Cardiac Rehabilitation staff designed and ran the 2nd annual NWH Cardiovascular Health Fair in the White Building lobby on February 28, 2018. This fun and interactive event focused on raising employee awareness of the cardiovascular benefits of physical activity.
  - On The Move Program: Daniel Destin (Health Coach for Cardiovascular Disease Prevention Program, Manager of Shipley Fitness Center), Dr. Philippides (Chief, Cardiology) and the NWH Cardiac Rehab staff supported by the NWH Senior Leadership Team championed the NWH "On the Move" program. "On the Move" is a hospital wide campaign focused on increasing physical activity for all NWH employees, in an effort to:
    - Improve health and wellness;
    - Increase employee engagement by connecting colleagues through shared motivation
    - Display NWH's commitment to employees' wellbeing
- 2018 AHA Heart Walk: The NWH Cardiology team, consisting of the physicians, nurses, medical assistants, technicians and administrators (and their family members) of the Elfers Cardiovascular Center, participated in the annual American Heart Association (AHA) Heart Walk to raise money and awareness for heart attack and stroke. The 2018 event took place on Saturday, September 8 on the Boston Common.
- Drive for City of Waltham Public Schools: the NWH Cardiology team coordinates a sports equipment/ball drive for students in Waltham Public Schools to encourage physical activity and

cardiovascular exercise.

CARDIAC CT – Second Question List

5. **In order to understand Patient Panel need for the Proposed Project Component, outline the Center's existing diagnostic and interventional capabilities and percentage of its patients needing to transfer to BWH or MGH over the past 3 years.**

Existing diagnostic and interventional capabilities: Currently, the Center provides exercise stress tests, exercise echocardiogram stress tests, nuclear exercise stress tests, pharmacologic nuclear stress tests and dobutamine echo tests. The hospital does not perform: coronary computed tomography angiography ("CCTA") or invasive coronary catherization/coronary angiography procedures.

Percentage of Patients in Need of Transfer: Over the past 3 years, NWH clinicians have referred 1,000 cardiovascular procedures (both inpatient and outpatient) to MGH and BWH. Of these patients, approximately 500 were referred for diagnostic catherization. Additionally, approximately 360 of these patients were referred for Percutaneous Coronary Intervention ("PCI") procedures. Another 50-75 patients per year were referred to MGH/BWH for CCTA procedures. Acquisition of a Cardiac CT will improve patient health outcomes and experience as the hospital will be providing a minimally invasive option for qualifying patients to determine their level of coronary artery disease ("CAD") or cardiovascular condition/disease. This new modality will eliminate the need for some patients to receive invasive procedures, such as a cardiac catherization or angiogram. Moreover, this acquisition will ensure qualifying patients may be treated at NWH for services, rather than being transferred to BWH or MGH, creating improved patient experience due to convenient access to services closer to home.

APPLICANT QUESTIONS

Responses should be sent to DoN staff at
DPH.DON@State.MA.US

While you may submit each answer as available, please

- List question number and question for each answer you provide
- Submit responses as a separate word document, using the above application title and number as a running header and page numbers in the footer
- When providing the answer to the final question, submit all questions and answers in one final document
- Submit responses in WORD or EXCEL; only use PDF's if absolutely necessary. If "cutting and pasting" charts, provide them in a PDF so they can be clearly seen

1. **Does the hospital have a formal policy regarding that when the census reaches 9 patients or greater, direct transfers into the SCN from other area hospitals are prohibited and when the census reaches 12 or greater, NWH obstetric patients must be transferred to another hospital? If so, could you share a copy with us.**
2. **What is this policy based upon- hospital experience, clinical input, other industry standard?**

Currently, Newton-Wellesley Hospital ("NWH" or "Hospital") has in place a procedure to determine when the Special Care Nursery ("SCN") is open to retro-transfers (infant patients in need of SCN services) and/or high risk obstetrics patients. Known as "Green, Yellow, Red Status," this procedure leaves two admission beds for "in-house" infant patients requiring the SCN when on "Yellow Status." At "Red Status," if there are no upcoming discharges or the ability to transfer current patients to other units, then NWH clinical staff treat and transfer infants needing admission. Although not a formal Hospital policy, this procedure serves as a guideline for staff on this matter and is currently being developed into a formalized process by the Neonatology and Nursing Departments. "Green, Yellow, Red Status" is based on NWH's bed space/monitoring equipment capabilities. Table 1 below outlines the procedure at each level of status.

Table 1: NWH SCN Green, Yellow Red Status Overview

Census < 10	Census 10-12	Census >12
• Attend am & pm safety rounds • Open to retro transfers • No expected issues	• Attend am & pm safety rounds • Closed to retro transfers • Assess potential discharges/transfers to Mother Baby or Pediatrics within 24-48 hours	• Attend am & pm safety rounds • Assess potential discharges/transfers to Mother Baby or Pediatrics within 24-48 hours • Closed to retro transfers • Close to OB patients </= 36 wks gestation. • Notify Nurse Director & Chair of Neonatology to notify ACNO & L&D/OB team • Possible treat & transfer status- identify open NICU/SCN beds in

		the system.