STAFF REPORT TO THE PUBLIC HEALTH COUNCIL **FOR A DETERMINATION OF NEED**	
Applicant Name	Signature Healthcare Corporation
Applicant Address	680 Centre Street, Brockton, MA, 02302
Date Received	March 25, 2019
Type of DoN Application	Ambulatory Surgery
Total Value	$4,119,450
Project Number	19032512-AS
Ten Taxpayer Group (TTG)	None
Community Health Initiative (CHI)	$205,972.50
Staff Recommendation	Approval
Public Health Council	August 14, 2019

Project Summary and Regulatory Review

Signature Healthcare Corporation (SHC or the Applicant), submitted a Determination of Need (DoN) application for a substantial change in service to expand their ambulatory surgical capacity within an existing hospital building, located at Signature Healthcare Brockton Hospital (the Hospital). The proposal is to renovate 6,720 gross square feet (GSF) for two additional operating rooms (ORs), with six pre- and post-operative care rooms and support space. The capital expenditure for the Proposed Project is $4,119,450; and the Community Health Initiatives (CHI) commitment to the Statewide Initiative Fund is $205,972.50.

Review of Applications for Ambulatory Surgery is under the DoN regulation 105 CMR 100.000. The Department must determine that need exists for a Proposed Project, on the basis of material in the record, where the Applicant makes a clear and convincing demonstration that the Proposed Project meets each Determination of Need Factor set forth within 105 CMR 100.210. This staff report addresses each of the six factors set forth in the regulation.

The Department received no public comment on the application.

This summary, analysis and recommendation reflect the purpose and objective of DoN which is "to encourage competition and the development of innovative health delivery methods and population health strategies within the health care delivery system to ensure that resources will be made reasonably and equitably available to every person within the Commonwealth at the lowest reasonable aggregate cost advancing the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation" (105 CMR 100.001). All DoN factors are applicable in reviewing ambulatory surgery DoN Applications. This Staff Report addresses each of these factors in turn.

Background

Signature Healthcare Corporation (SHC, the Applicant) is located in Brockton, Massachusetts. SHC is the parent organization of Brockton Hospital, Inc. (the Hospital), and Signature Healthcare Medical Group, Inc. (SMG).

SHC is a Health Policy Commission (HPC) certified Accountable Care Organization (ACO).[a] It has one MassHealth contract (BMC HealthNet Plan Signature Alliance) and several managed risk contracts. The Applicant manages care across the entire continuum of care for 20,000 MassHealth ACO patients, 6,500 Blue Cross AQC patients, and 2,000 Tufts Medicare Preferred patients. The Applicant also manages bundled contractual arrangements through the BPCI Medicare Bundle program for "eleven clinical episodes" for another 8,000 Medicare patients.[1]

SHC is also a clinical affiliate of Beth Israel Deaconess Medical Center (BIDMC), Harvard Medical Faculty Physicians at BIDMC, Inc., and the Floating Hospital for Children at Tufts Medical Center.

The Hospital is a community non-profit 197-bed teaching hospital, providing a full range of primary care, specialty care, hospital care and related ancillary clinical services. Since the organization does not have a corporate or contracting affiliation with an academic medical center or with a teaching hospital, it is designated an Independent Community Hospital by the Massachusetts Health Policy Commission (HPC). In addition, it has been designated by CMS as a Disproportionate Share Hospital[2] and MassHealth as a high public payer hospital.[3,4] SMG is a multi-specialty employed physician group model of more than 150 multi-specialty physicians practicing in 18 ambulatory locations in the Brockton area.

The Proposed DoN Project

The Proposed Project will provide expanded operating room capacity through renovation of existing space to be used for outpatient surgical procedures (orthopedic, joint, ophthalmologic, urological and to a lesser extent, thoracic and breast reconstruction) to address Patient Panel need. Currently the hospital has six operating rooms (ORs) and 19 pre- and post-operative care rooms and it proposes to add two ORs and six pre and post-operative care rooms, as shown in the table below.

	Current #	Additional Proposed #	Total ORs if Approved
ORs	6	2	8
Pre- & Post-op Treatment Areas	19	6	25

Factors 1 & 2: Patient Panel Need

[1] The Applicant reports three of their contracts include up and downside risk while others include upside risk only. Bundled payments are for medical services including CHF, COPD, AMI, sepsis and simple pneumonia.

[2] Disproportionate Share Hospitals serve a significantly disproportionate number of low-income patients and receive payments from the CMS to cover the costs of providing care to uninsured patients.

[3] Over 70% of combined payments are from MassHealth and Medicare (31% of revenues are from MassHealth; 40% is Medicare/Medicare HMO).

[4] Each designation entitles hospitals to receive a supplemental payment based on formulae that incorporate the percentages of Medicaid and Medicare patients served.

In this section, we assess if the Applicant has sufficiently addressed Patient Panel need, public health value, competitiveness and cost containment, and community engagement for the Proposed Project. We also assess whether the Applicant has demonstrated that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

Factor 1: a) Patient Panel Need[5]

The Applicant reports a three year (FY 2016-18) Patient Panel (Panel) of approximately 100,000 patients through three access points: inpatient discharges, emergency room visits and medical practices. It notes a decline among patients that are from outside of its ACO, attributing it to "attempts of healthcare organizations to control leakage" from their managed care networks. The Applicant notes that among its medical practices, of top five reasons for visits, two are most likely to impact the surgical service (obesity -15% and low back pain - 12%).

The Applicant reports that about half their Patient Panel is aged 21-60, and about 30% are older than 61. Based on self-reporting, approximately 42% of the Panel is Caucasian, 22% is Black/African American, and 6% is Hispanic/Latino. The Panel also includes patients from Cape Verde (10%) and Haiti (3%).

The table below shows that the Applicants payer mix for public payers is about 71% from all revenue sources, meaning that about 29% is from commercial payers. The Applicant states that 10% less for Medicare surgical patients than overall because more surgeries are performed on the working population and youth. The Applicant projects there will be more surgical services needed as baby boomers retire.

	Medicare	MassHealth/ Medicaid	Commercial
Overall	40%	31%	29%
Surgical	30%	30%	40%

The Patient Panel is reflective of the city of Brockton, in which 52% of patients live.[6] Among cities and towns in Massachusetts, 2014 data showed Brockton had the highest percentage (6%) of individuals that did not have health insurance, as well as the highest percentage (49%) of individuals who were insured through public payers.[b] In 2017, the percentage showed a reduction in uninsured and an increase in public payers; they are 3.9% and 53.9% respectively.[c] Moreover, Brockton has high rates of income inequity (with a per capita income of 63% of median statewide income[7]), and a population that is racially and ethnically diverse, with ~41% Black/African American, ~42% White, and ~11% Hispanic, with ~28% of its population born outside the US.[d] According to the most recent American Community

[5] As defined in 105 CMR 100.100, Patient Panel is the total of the individual patients regardless of payer, including those patients seen within an emergency department(s) if applicable, seen over the course of the most recent complete 36-month period by the Applicant or Holder.

[6] 84% of the Applicant's patient panel resides in twenty cities and towns in Plymouth County.

[7] derived by dividing per capita income of $26,252 (Brockton) by $41,821 (State)

Survey,[e] ~43% speak a language other than English at home.[8] Of the fourteen counties in Massachusetts, Plymouth County ranked tenth for poor health factors[9] and ninth for health outcomes.[f] As compared to the state overall, the area has higher rates of obesity, lower access to exercise,[g] and Brockton alone has higher rates of adult smoking, lung cancer and lung cancer mortality than the state.[h]

Surgical Volume Growth & the Shift to Outpatient Surgeries

The Applicant asserts that having adequate OR capacity will enable it to better serve their Panel in a cost-effective, high quality setting. The Applicant cites the need for two additional ORs based on:

- **The population health data** in the region outlined above—in particular inactivity and obesity.
- **An aging population**. In Massachusetts, the 55+ age cohort will comprise 35% of the population by 2035, and it is estimated to grow 14% between 2020 and 2035.[10] Three-quarters of those ages 65 and older suffer from a musculoskeletal disease, including arthritis, back pain and trauma. The projected population growth for this age cohort will also lead to growth in volumes of surgical procedures, many of which are lower acuity and can be performed in the outpatient setting.
- **A growing need for orthopedic procedures**. At the national level, industry forecasters[11] have found an increasing need for orthopedic procedures, placing greater constraints on existing OR capacity. Other than aging, underlying reasons include: the growing prevalence of obesity, osteoarthritis, and diabetes; and the increasing levels of physical activity in younger segments of the population.[i] According to a recent national report the number of knee and hip procedures is up across almost all age groups nationwide. From 2010-7, utilization increased by 17 percent for knee replacements and 33 percent for hip replacements.[j]
- **The considerable increase in overall surgeries over the past four years, and operating near capacity.** The table below details growth in surgeries; overall surgeries grew 10% from 2015-2018.[12] This growth has put SHC's OR utilization rates are near capacity 80% (FY 17) and 74% (FY18); according to industry metrics, a utilization goal of 75 - 80% is standard.[k] [13]
- **A growth[14] in the proportion of outpatient to inpatient appropriate surgical procedures** (which include some arthroscopies of the shoulder, knee and hip, and cataracts for lower acuity patients) Nationally, advances in the administration of

[8] For comparison, in Plymouth County 13% speak a language other than English; 5% of them "not very well."

[9] includes health behaviors (Tobacco use, diet and exercise, sexual activity), clinical care access, socio-economic factors (education and employment and community support and safety) and the physical environment (housing, transit, air and water quality).

[10] The Massachusetts Secretary of the Commonwealth contracted with the University of Massachusetts Donahue Institute to produce population projections by age and sex for all 351 municipalities.

[11] Proprietary reports from The Advisory Board (http://www.advisory.com) and Sg2 Health Care Intelligence (www.sg2.com)

[12] Applicant will also recruit a part-time thoracic surgeon shared with BI Milton and BI Plymouth. Prior to the departure of their thoracic surgeon, 173 surgeries were performed in FY 2016.

[13] The Applicant reports a slight decline in FY 18 due to the closure of an operating room for renovations.

[14] Of total surgical volume, SHC has experienced a shift of inpatient surgeries to outpatient surgeries FY 17 to FY18: Inpatient: from 21% to 19%; Outpatient: 79 % to 81%

anesthesia and analgesics, along with the development and expansion of many minimally invasive or non-invasive procedures across many specialties,[15] [l] has resulted in growth in the number and type of lower acuity procedures appropriate for ambulatory surgery and approved by CMS for reimbursement. Over the next decade, forecasts suggest that outpatient orthopedic cases will increase by 15% and inpatient cases will decrease 2%.[m]

Top Surgical Specialties Most Impacted by Ambulatory Surgery at SHC	% Growth FY 15-18	Procedure Volume FY 2015-18
Orthopedic	65%	(1,171 - 1,932)
Joint	79%	(204 - 365)
Ophthalmologic	15%	(568 - 653)
Urological	10%	(448 - 495)
All OR cases (inpatient and outpatient)	10%	(5,560 - 6,121)

Moreover, the Applicant is projecting an additional 500 orthopedic procedures over FY 19-2020. To address anticipated growth in orthopedics, the Applicant plans to recruit three additional surgeons. The Applicant's clinical affiliation with BIDMC currently focuses on Orthopedics and Oncology; it is being extended into Urological and Thoracic procedures. This affiliation allows more procedures to be performed at SHC, keeping managed care patients within the SHC system and closer to home.

Staff finds that the information provided by Applicant demonstrates sufficient need by their Patient Panel through significant surgical volume growth within their existing six ORs, local health data related to the prevalence of diseases and health risk factors that may lead to surgery within the communities served, and an aging population at risk for musculoskeletal conditions. National data confirms similar trends in ambulatory surgery, as stated by the Applicant, shown in the table to the right.

The Proposed Project will address the shift to outpatient surgeries that the Applicant has already begun to experience, and that is well-documented as a national trend[o] [p]. It expects this trend will continue due to advances in technology and changes in reimbursement structures as discussed in subsequent factors.

10 most common ambulatory invasive, therapeutic surgeries performed in community hospitals in the United States, 2014[n]
1. Lens and cataract procedures
2. Muscle, tendon, and soft tissue OR procedures
3. Incision or fusion of joint, destruction of joint lesion
4. Cholecystectomy and common duct exploration
5. Excision of semilunar cartilage of knee
6. Inguinal and femoral hernia repair
7. Repair of diaphragmatic, incisional, and umbilical hernia
8. Tonsillectomy and/or adenoidectomy
9. Decompression peripheral nerve
10. OR procedures of skin and breast, including plastic procedures on breast

[15] The Centers for Medicare and Medicaid Services (CMS) approved Medicare reimbursement for ambulatory surgery performed both at Hospital Outpatient Departments (HOPDs) and ambulatory surgery centers (ASCs).

Factor 1: b) Measurable public health value, improved health outcomes and quality of life; assurances of health equity

The Applicant asserts that having additional OR capacity will enable the Applicant to meet growing need for all surgical services, thereby increasing access for more patients in a timely manner, regardless of insurance status. By moving appropriate surgeries[16] to the outpatient setting, Applicant asserts that care will be improved in a number of ways:

- **Ease of Access**. The location is more accessible and convenient, with parking close to the entrance where the ORs are located.
- **Improved outcomes**. A number of outpatient surgeries have been shown to have improved health outcomes than those performed in the inpatient setting.

Applicant states it is difficult to measure public health outcomes through the addition of two ORs. It outlines generic outcomes such as better service, greater mobility and function. Through quality improvement initiatives,[17] [18] as the Applicant did cite previous improvements in two standard quality/outcome indicators (surgical DVT/PE outcome rate and unplanned readmit rate).

Health Equity and Social Determinants of Health

The Applicant provides care to a diverse, low income population, as outlined above. The Applicant asserts that in its ongoing commitment to health equity, it employs culturally competent staff, and develops culturally appropriate support services to ensure high quality experience and outcomes for patients. At orientation and annually, SCH provides training to all staff that "includes consideration of diverse values and beliefs;" and nurse educators provide training to clinical staff.

Data provided on the use of their Interpreter Services Program[19] shows that over 30,000 patients in their panel receive services yearly; 76% have face-to-face interpreter services. Throughout SHC, availability of the service is posted into the languages most commonly used by the populations in the service area. The Service is available at all levels of care; scheduling occurs through appointment booking and task management systems.

The Applicant currently screens patients for disabilities and Social Determinants of Health (SDOH)-related needs[20] at the point of registration for surgical procedures; this will also extend to the ambulatory surgical suite. Once needs are identified, patients are referred in advance of their procedures to community resources. In addition, the Applicant has raised funds for local taxi transportation, has provided free prescriptions, as well as other necessities not covered by insurance. Staff posed additional questions of the Applicant around SDOH and learned that the three most immediate social determinants relate to transportation, language and reading comprehension.

[16] based on acuity and complexity

[17] Two cited programs: "Early Recovery After Surgery Program/Colon Program" and the "Vascular Taskforce"

[18] SHC uses LEAN to focus on quality improvements, eliminating waste, improving efficiencies and safety

[19] SHC staff interpreters cover the top languages in SHC Patient Panel: Cape Verdean Creole, Portuguese, Spanish and Haitian Creole.

[20] This assessment includes transportation, in-home safety, substance use, mental health, housing, advanced directives, and anticipated post-surgical needs.

Public health value, improved health outcomes and quality of life: Analysis
Staff found that the data presented demonstrate the need for the Proposed Project. A recent review[q] also found that outpatient surgeries had similar or improved rates of pain and nausea as compared to inpatient, and that major morbidity and mortality following are extremely rare. Patients who undergo outpatient orthopedic surgeries have been found to experience similar or increased satisfaction as inpatients. However, the review noted that preoperative education programs were not always prescribed and quality was highly variable. This may be of particular importance to outpatients, since the most commonly reported postoperative complication of outpatient anesthesia is pain.

Advances in the administration of anesthesia and analgesics, along with the development and expansion of many minimally invasive or non-invasive procedures across many specialties,[r] has resulted in growth in the number and type of lower acuity procedures appropriate for ambulatory surgery and approved by CMS for reimbursement.[21] A literature review found that outpatient procedures were associated with greater cost savings (up to 60% in mean total cost) than inpatient procedures.[s] Yet, a BCBS nationwide study[t] showed only 11% of knee procedures and 8% of hip procedures were performed on an outpatient basis in 2017. The same study showed outpatient complication rates have substantially improved by 23% for knee procedures and 36% for hip procedures, which are lower than complication rates in the inpatient setting.

Staff found minimal discussion of preoperative education programs (limited to total joint replacement classes), and minimal discussion of anticipated improved health outcomes. In order to completely address Factor 1, staff suggests conditions requiring the annual reporting of specific outcome data, as well as expansion of preoperative education programs, which are outlined below.

Health Equity: Analysis
Staff finds that through their current staff hiring and training programs on cultural diversity, their provision of language interpreter services, SDOH pre-screening, and their assistance with transport and prescriptions that includes linkages to community-based services, the Applicant has sufficiently outlined a case for improved health outcomes and has provided reasonable assurances of health equity.

Factor 1: c) Efficiency, Continuity of Care, Coordination of Care
The Applicant states that at SHC's primary care sites there are linkages to the Hospital's electronic health record (EHR), which facilitates coordination of care and ensures continuity of services. To further improve coordination of services, starting in November 2019, SHC will implement a single EHR that is shared by all providers and accessible throughout the entire continuum of care. Through a single EHR, shared among the Hospital, medical group, and the parent organization (the ACO) all patient information will be stored in one medical record and accessed through a single portal.

[21] The Centers for Medicare and Medicaid Services (CMS) has approved Medicare reimbursement for ambulatory surgery performed both at Hospital Outpatient Departments (HOPDs) and ambulatory surgery centers (ASCs).

As stated previously, implementation of the new ORs will improve efficiencies through improved scheduling of blocks of time for high volume surgeons and procedures. There will be ongoing staff training on the Team Based Care Model to improve throughput and quality. Additionally, having dedicated equipment and a facility that is equipped for the specific procedures being performed reduces turnover time and improves throughput.

Analysis
Staff finds that the Applicant's move to a single EHR, while not dependent on Project approval, is likely to achieve greater efficiencies, continuity of care and care coordination. These improvements have been well-documented in the literature and include such benefits as better message tracking among the provider team, alerts for prescription renewals, and easier access to laboratory results which can lead to reduced duplication of testing.[u] These benefits can also lead to time-savings for patients and clinicians, and reductions in medical errors and improved quality of care with better outcomes. Further, staff finds that the dedicated ambulatory surgical suite is likely to yield many of the well-documented efficiencies and cost savings of the freestanding ASC model, which is based on uniformity of procedures performed within a scheduled block of time for both surgeons and clinical teams. The team develops a specialized skill-set and works in a space designed and equipped to meet the specific needs of that specialty procedure, which results in reduced procedure times, efficiencies and cost-savings.[v]

Factor 1: d) Consultation
The Applicant has provided evidence of consultation with government agencies that have licensure, certification or other regulatory oversight, which has been done and will not be addressed further in this report.

Factor 1: e) Evidence of Sound Community Engagement through the Patient Panel
The Department's Guideline[22] for community engagement defines "community" as the Patient Panel, and requires that at minimum, the Applicant must "consult" with groups representative of the Applicant's Patient Panel. Applicant met with a newly established Community Advisory Board (which they state is representative of their Patient Panel) 3 times during the planning phase. It appears that there was opportunity for questions, discussion, and feedback, with a commitment to keep the Board engaged post DoN approval.

Analysis
Staff finds that the Applicant has met the required community engagement standard of *Consult* in the planning phase of the Proposed Project.

Factor 1: f) Competition on price, TME, costs and other measures of health care spending
As noted previously and below in factor 2, by transferring appropriate lower-acuity surgeries to the proposed outpatient suite that is designed for the efficient delivery of surgical services, the applicant will be able to maintain its competitive status by enabling it to see more patients, in other words, increase throughput. This model has been shown to help facilities to reduce

[22] Community Engagement Standards for Community Health Planning Guideline https://www.mass.gov/files/documents/2017/01/oa/guidelines-chi-planning.pdf

costs. In addition, the Applicant has pledged to not change payer contract rates for this service. The Applicant's unit costs per procedure will remain competitive since it is able, through its clinical affiliation with BIDMC, to obtain the best purchasing pricing tier for supplies.

Analysis
Staff finds that on balance, the requirement that the project compete on the basis of price, total medical expenses (TME) provider costs, and other measures of health care spending has been met through the Applicant's demonstration that this is a highly cost effective method of providing this service. Staff notes that while reimbursement is generally higher for hospital-based outpatient surgery than for freestanding ambulatory surgery centers, CMS is making steps to equalize payments for these services making the payments "site neutral."

Summary Analysis of Factor 1
Staff finds that with this project, the Applicant will be providing a service to a Patient Panel with documented gaps in access to care and health disparities related to SDOH. Having improved, and perhaps earlier access to surgical dare can allow patients to return to full mobility- to reduce time lost from work and from caring for their families. The Applicant's new OR rooms have the potential to be used in an efficient, cost effective manner with the infrastructure in place to ensure that care is of equal or higher quality than in the inpatient setting. The economies of scale gained by extending existing programs that address SDOH, such as transportation and prescription payments will ensure more patients can benefit from such programs. Plans for a single EHR will enhance coordination of care and facilitate management of all ACO and other risk contract patients.

In order to completely address Factor 1, staff suggests conditions requiring the annual reporting of specific outcome data, as well as preoperative education programs, which are outlined below.

Factor 2: Cost containment, improved public health outcomes and delivery system transformation
The Applicant outlines three factors contributing to the Commonwealth's goals for cost containment, as discussed above: being a low cost hospital; adding local capacity preventing "leakage" to higher cost providers; and providing a well-planned, designated area and related processes for ambulatory surgery improving throughput and leading to cost savings.
In addressing public health outcomes, the Applicant listed a number of wellness and prevention programs that are designed to improve the health of the local population. The Applicant appears to address Delivery System Transformation through the high percentage of its Patient Panel in ACOs and managed risk contracts. As discussed above, the Applicant is itself an ACO and has a high percentage of other managed risk contracts. As noted above, the Applicant has stated that all surgical patients will have SDOH screening.

Analysis
To assess the assertions, staff evaluated SHC's Commercial Relative Price over three years and found some noteworthy information that is reflective of SHC's regional status. The commercial relative price has been steady at .79 over the three years. This means that the hospital's reimbursement rate from commercial payers is consistently below the average payment to hospitals and suggests that the Applicant is already contributing to the

Commonwealth's cost containment goals. Further, having sufficient capacity to treat more patients in the lower cost setting (rather than going to other hospitals in the region which have higher relative prices) will contribute to lower health care expenditures.

As previously stated, studies have documented lower acuity surgeries performed in an outpatient setting tend to have not only lower costs, but also fewer complications and improved public health outcomes versus those performed in an inpatient setting. CHIA[w] reporting shows that SHC's case-mix index is within the range of its cohort "community hospitals" and lower than the statewide average, thus a logical site for lower acuity ambulatory surgery. Staff concurs that by having dedicated outpatient ORs to meet the needs of lower acuity patients, the Proposed Project will ensure that the Applicant has better control over leakage of its patient panel to other providers, and has better control of costs and outcomes.

Central to the goal of delivery system transformation is the integration of social services and community-based expertise. The Applicant has sufficiently described how the needs of their Patient Panel are assessed and how linkages to social services organizations are created. Since the Applicant itself is an ACO and has several managed risk contracts, including Medicare, it has ongoing incentives to address population health needs and SDOH.

Finally, the Proposed Project has the potential to improve care delivery, cost containment and population health through greater collaboration and communication among providers, resulting in improved health outcomes. With additional OR capacity and a well-coordinated process, the proposed project should enable SHC to better coordinate the care along the continuum for the Patient panel. In so doing, SMG—the multi-specialty employed physician group model practicing in 18 ambulatory locations in the Brockton area—will also benefit from these initiatives.

Factor 3: Relevant Licensure/Oversight Compliance

The Applicant has provided evidence of compliance and good standing with federal, state, and local laws and regulations and will not be addressed further in this report.

Factor 4: Demonstration of Sufficient Funds as Supported by an Independent CPA Analysis

The CPA analysis reviewed three years of audited financial statements for FY 15-17 and unaudited financial statements for FY 2018, as well as historical surgical statistics and metrics, supporting assumptions, and the OR forecasts of revenues and expenses (including payer-mix, salaries, and the proposed capital costs). Industry reports[x] were also reviewed. Key metrics and ratios for profitability, liquidity, and solvency of SMC were compared against industry standards to measure the Hospitals' overall financial health.

The projections through 2023 show cumulative operating earnings before interest, tax, depreciation and amortization (EBITDA) of 5.2%, with a positive cash flow and a small net increase in cash throughout the duration of the projections. Based on the CPA's review of all of the listed documentation, the CPA determined that the surplus within the projections "is a reasonable expectation and based upon feasible financial assumptions." Further, the CPA "determined projections are reasonable and feasible, and therefore, the Proposed Project is

not likely to have a negative impact on the patient panel or result in liquidation of assets of SHC."

S**taff finds that the** CPA analysis to be acceptable and notes that the operating margin of SHC is in the 5 to 6% range over the 2015-2017 timeframe based on reporting by CHIA.[23]

Factor 5: Assessment regarding Proposed Project's superiority to alternative

The Applicant compares the Proposed Project to the alternative of constructing a freestanding ASC, and to maintaining the status quo. From a cost and efficiency perspective, the architecture firm states that capital cost of renovation is at least 30% less than new construction; and it will offer economies of scale related to more efficient use of existing space. Additionally, operating costs are largely incrementally related to volume increases; they are associated with increased staffing and supplies.

Staff finds that the Applicant has appropriately considered the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives or substitutes.

Factor 6: Fulfillment of DPH Community based Health Initiatives Guideline

The Applicant submitted a CHNA/CHIP Self-Assessment, 4 Stakeholder Assessments and the 2016 Community Health Needs Assessment for Signature Healthcare (2016 CHNA) as required by the Guideline.[24] This included:

- **Information on the 2016 CHNA's analysis and incorporation of information related to the DPH required domains** (Built Environment, Social Environment, Violence, Housing, Employment, Education, Mental Health, Substance Use Disorder, Housing Stability/Homelessness and Chronic Disease with a focus on Cancer, Heart Disease, and Diabetes). In the Self-Assessment, the Applicant provided a summary of socio-demographic data and highlights of health outcome information related to these topics. Additionally, the Applicant provided reference to sections of the 2016 CHNA with more detail and analysis.
- **A self-analysis of community engagement levels** (using the required stages of the Spectrum of Pubic Participation) based on the 2016 CHNA and subsequent implementation activities. This included information on the type of activities the Applicant engaged in to justify their self-analysis. For example for the Assess Needs and Resources self-analysis they included information on how the 2016 CHNA conducted community impression sessions and that they conducted key informant interviews with people who work and live in a selection of the towns included in the 2016 CHNA to discover what they see as the major issues in their region.
- **Composition of their community benefits advisory committee.** The Committee includes representatives from a range of sectors including local health, social service, local education, local business and some community based organizations.
- **Stakeholder Assessments from 4 individuals**. The Applicant provided stakeholder assessments which contained information on the individuals' engagement levels (e.g. their personal participation and role) and their analysis of how the Applicant engaged

[23] Staff relies on the CPA Analysis and CHIA reporting and does not perform its own financial analysis
[24] Community Engagement Standards for Community Health Planning Guideline, 2017 https://www.mass.gov/files/documents/2017/01/vr/guidelines-community-engagement.pdf

the community in community health improvement planning processes. The information provided in these forms were largely consistent with the self-assessment conducted by the Applicant.

The Applicant did not provide additional narrative describing their plans or activities for the in-process 2019 Community Health Needs Assessment.

Analysis

Staff identified four areas that were deficient in the Applicant's submission:

Internal Community Health Planning Structure

a) The 2016 CHNA/CHIP did not adequately engage community members, other stakeholders or assess community needs to identify health inequities.
b) The Applicant provided insufficient detail as to how it structures community health planning, including the role and function of advisory committees and formalized stakeholder groups engaged in community health planning processes.

Advisory Committee Representation

- The Applicant's Advisory Committee is missing important sectoral representation, specifically housing, transportation, municipalities, and community health centers. Additionally, it was unclear how residents, specifically from Brockton (the focus of much of the Applicant's community health activity) were represented on the Advisory Committee.

Community Engagement Processes

- Insufficient details were provided on who was involved in CHNA/CHIP engagement activities or the types of questions asked in focus groups or key informant interview settings. Staff was unable to assess processes for identifying and engaging stakeholders, sample questions asked of stakeholders, and methods for feedback solicitation and incorporation into community health planning processes, staff was unable to assess this fully.

Social Determinants of Health Analysis

c) The Applicant did not provide sufficient analysis of Social Determinants of Health (SDOH) appropriate to ensure strategy selection would meet the Health Priority standards. The information provided focused on summaries of socio-demographic data but did not contain an analysis of the policies and systems impacting and relating to the social determinant of health domains.

In order to fully meet the criteria required in Factor 6, staff recommends a number of conditions, outlined below.

Based upon a review of the materials submitted, Staff finds that, with the addition of certain conditions described below, the Applicant has met each DoN factor and recommends that the Department approve this Determination of Need application for two ambulatory surgery

operating rooms, and associated support space, subject to all applicable standard and other conditions (105 CMR 100.310, 105 CMR 100.360(A) and (C)).

Additional Conditions:
In order to demonstrate that Proposed Project will add measurable public health value in terms of improved health outcomes and quality of life for Applicant's Patient Panel, the Holder shall, on a yearly basis:

1. Report on the following health outcomes and quality measures related to outpatient surgical procedures:
    a) **Validated** patient-reported outcome measures (PROMs), such as those in HOOS-12, HOOS JR, KOOS-12, and KOOS JR.[25] At minimum, Signature shall report on two joint-specific PROMs that measure functional status following a procedure:
        - Hip Disability and Osteoarthritis Outcome Score through HOOS (HOOS-12) (12 questions), or HOOS JR (6 questions)
        - Knee Injury and Osteoarthritis Outcome Score through (KOOS) (42 questions), KOOS-12 (12 questions), or KOOS JR (7 questions)

    b) Quality Measures:
        - Unplanned Hospital Visits from all outpatient surgical procedures, using Centers for Medicare and Medicaid Services (CMS) Hospital Outpatient Quality Reporting Program measure on outpatient surgery (OP-36: Hospital Visits after Hospital Outpatient Surgery)
        - For outpatient ophthalmologic surgical procedures, using Centers for Medicare and Medicaid Services (CMS) Hospital Outpatient Quality Reporting Program measure on vision improvement following cataract procedures (OP-31: Cataracts: Improvement in Patient's Visual Function within 90 Days Following Cataract Surgery)
        - For outpatient hip and knee arthroplasty procedures. Surgical site infections, using Center for Disease Control and Prevention's National Healthcare Safety Network (NHSN) measures[26]
2. Report on the description of, and protocols for, Preoperative Education Programs for each outpatient surgical procedure. Yearly reports shall include the number of patients receiving each program as well as assessment of program effectiveness.

<u>CHI Conditions to the DoN</u>

3. Of the total required CHI contribution of $205,972.50
    a. $20,597.25 will be directed to the CHI Statewide Initiative

[25] Hip Disability and Osteoarthritis Outcome Score (HOOS), Knee injury and Osteoarthritis Outcome Score (KOOS)

[26] All Massachusetts acute care hospitals are already required to report surgical site infections related to hip and knee arthroplasty procedures that occur in the **inpatient** setting to the CDC's National Healthcare Safety Network (NHSN); Signature already makes that data available to the Department.

b. $185,375.25 will be dedicated to local approaches to the DoN Health Priorities
c. To comply with the Holder's obligation to contribute to the Statewide CHI Initiative, the Holder must submit a check for $20,597.25 to Health Resources in Action (the fiscal agent for the CHI Statewide Initiative).
    i. The Holder must submit the funds to HRiA within 30 days from the date of the Notice of Approval.
    ii. The Holder must promptly notify DPH (CHI contact staff) when the payment has been made.

4. The Holder will recruit new members from the Housing, Planning and Transportation, Municipality, and Community Health Center sectors for the Advisory Committee. The Applicant will also recruit Brockton community residents for participation in the Advisory Committee. The Applicant will provide information to DPH on actions taken relative to these matters within one month of the Notice of Approval.
5. The Holder will send to DPH a document formally describing the Advisory Committee's decision making role in priority setting and in the funding plan within one month of the Notice of Approval. Document will provide a description of how the document was reviewed and approved by committee members.
6. In order to obtain approval to proceed to strategy implementation, DPH requires the Holder to submit the final 2019 CHNA for review upon completion, but no later than November 1, 2019. DPH will ensure the CHNA demonstrates adequate Social Determinant of Health analysis and community engagement processes required to select Health Priority strategies through the Tier 1 process described in the Community-Based Health Initiative Planning Guideline. Accordingly, the Holder must meet, as determined by the Department, the standards presented in:
    a. The description of barriers to community participation, as noted in Appendix A of the Community Engagement for Community Health Planning Guideline; and
    b. Incorporate an analysis of the social determinants of health into needs assessments, priority setting and strategy implementation, as outlined in the DoN Health Priority Guideline.

    If, upon review of the 2019 CHNA, DPH determines there is inadequate social *determinant of health analysis and community engagement processes required to* select Health Priority strategies, the Holder will be required to complete the Health Priority Strategies form. By requiring this step, DPH will ensure that strategies being implemented meet Health Priority standards as described in the Health Priority Guideline. If this step is required, the Form will be due by December 1, 2019.
7. The Applicant and the Department have agreed to certain post PHC approval steps and a timeline as spelled out in the Community-Based Health Initiative Planning Guideline:
    - The Holder will select Health Priority Strategies, after reviewing the strategy selection criteria in the DoN Health Priority Guideline, from the 2019 Signature/Brockton Hospital community health needs assessment in

consultation with the Advisory Committee (after taking action as required in condition #4).

- Within 3 months of the completion of the 2019 community health needs assessment shall publicly post the funding plan to allow for public comment, or shall conduct a public request for proposal (RFP) process.

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