STAFF REPORT FOR A DETERMINATION OF NEED	
Applicant Name	Holyoke Medical Center
Applicant Address	57 Beech Street, Holyoke, MA 01040
Filing Date	November 4, 2020
Type of DoN Application	Hospital Substantial Capital Expenditure
Total Value	$38,271,254.00
Project Number	20080516
Ten Taxpayer Group (TTG)	No
Community Health Initiative (CHI)	$1,913,562.70
Staff Recommendation	Approval
Public Health Council	Yes

Project Summary and Regulatory Review

Holyoke Medical submitted a DoN Application for the construction of a three level 84 bed adult Behavioral Health Pavilion on the main hospital campus. The capital expenditure for the Proposed Project is $38,271,254.00; the Community Health Initiatives (CHI) contribution is $1,913,562.70.

This DoN application falls within the definition of DoN-Substantial Capital Expenditure, which is reviewed 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.

APPLICATION OVERVIEW

Background

The Applicant, Holyoke Medical Center (HMC or Applicant), is a 198-bed community hospital. It is "a full service acute care hospital that provides comprehensive inpatient and outpatient medical and surgical services, including Stroke Center."[1] HMC is a member of Valley Health Systems which includes Holyoke Medical Group, Holyoke Visiting Nurse Association and Hospice LifeCare, and River Valley Counseling Center. The Medical staff is comprised of more than 265 physicians and consulting staff.

The Applicant, which offers an array of behavioral health (BH) services, states that it has long been committed to the belief that providing a comprehensive continuum of behavioral health services to the community is critically important to the well-being of the citizenry. The Applicant currently operates 20 inpatient adult psychiatric beds.[2] Additionally, in 2017 a separate, secure six-bed psychiatric assessment area was opened adjacent to the Emergency Department (ED) to reduce the number of psychiatric patients within the ED proper, and to provide a more secure area to board patients while waiting for a psychiatric bed to become available.

In addition to the inpatient beds, the hospital provides a psychiatric Partial Hospitalization Program (PHP) and an Intensive Outpatient Program (IOP).[3] Through River Valley Counselling Center (RVCC), the Medical Center provides an array of outpatient wraparound, behavioral health, and addictions counseling services to area children, adolescents, adults, and elderly, including the most vulnerable and high-risk patients in the community. Last year, RVCC provided over 165,000 individual counseling sessions through their nurses and therapists. Over a year ago, RVCC launched an initiative to integrate behavioral health within primary care physicians' practices by placing individual therapists from RVCC within those practices. With increased access to telehealth as a result of the SARS-CoV-2 (COVID-19) emergency,[4] the program has expanded and the Applicant expects further growth as access to telehealth becomes more accessible to the community.

The Project

[1] It is certified in the ISO 9001:2015 Quality Management System, received the Top Hospital Award in 2014 and 2016 from Leap Frog Group, and in 2019 earned the Get with the Guidelines: Stroke Honor Roll Elite Plus Award from the American Heart Association/American Stroke Association.

[2] In response to the COVID-19 emergency, the Determination of Need program approved an emergency waiver for an 8-10 acute pediatric psychiatric bed unit in the Hospital expected to be operational by spring 2021.

[3] Both of these programs are licensed by the Bureau of Substance Addiction Services.

[4] which lead to loosening restrictions and improved payments for telehealth

The proposed project, referred to as the Pavilion, will enhance HMC's existing behavioral health inpatient and outpatient services, and expand and improve services across the continuum of behavioral health treatment programs it offers to the community. HMC proposes to construct a new adult psychiatric facility on its main campus increasing the number of licensed inpatient adult psychiatric beds from the current twenty (20) beds, to eighty-four (84) beds. Of the additional sixty-four (64) beds, thirty-six (36) will be for the unique behavioral health needs of elderly patients, age 65 years or older. Forty-eight (48) adult psychiatric beds will serve patients age 18 to 64.

Inpatient and PHP and IOP services will be included in the new Pavilion and will maintain their current licensure and certifications with in the Department of Public Health (DPH)and the Department of Mental Health (DMH)[5] The inpatient geriatric psychiatric program, comprised of two eighteen (18) bed units on the third floor, will provide a therapeutic environment adapted to the physical limitations of the frail elderly, while also being responsive to the common co-occurring medical issues often associated with aging. The general adult unit, comprised of two twenty-four (24) bed units on the second floor, will provide treatment for the acute, often severe, psychiatric needs of adults, many of whom are likely to have secondary issues related to drugs and alcohol.

The continuum of care available at the facility will include a range of outpatient services on the ground floor that includes Adult and Geriatric Intensive Outpatient services (IOP) outpatient care, and clinical and ancillary services. In addition, 4,000 gross square feet (GSF) of shell space will remain for future needs.

The Applicant describes a year-long process preceding the submission of its DoN Application, in which it made assessments of program needs, explored site layout, building design, zoning requirements intended to ensure HMC's capability to meet the behavioral health needs of its community into the future. Part of this analysis included financial feasibility analyses: the total cost of the building is approximately $38M. As described herein, the longstanding need for adult psychiatric services in the region has become exacerbated by two events: the closure of a BH facility within the immediate service area of HMC on June 30, 2020, and by the COVID-19 virus.

Behavioral Health services within a licensed acute care facility require compliance with all six Determination of Need factors. Additionally, this facility will be reviewed and licensed by the Department of Mental Health (DMH)[6] which provided one of many letters of support.

[5] Under Holyoke Medical Center's current provider number using the current NPI for behavioral health services.
[6] DMH is part of the Executive Office of Health and Human Services but is separate from DPH.

OVERVIEW of PROPOSED PROJECT AND FACTOR REVIEW

Description of Proposed Project Component	What's Needed to Meet Factor 1: Demonstration of need; improved health outcomes and quality of life; assurances of health equity; continuity and coordination of care; evidence of community engagement; and competition on recognized measures of health care spending.	What's Needed to Meet Factor 2: Demonstration of cost containment, improved public health outcomes, and delivery system transformation.	Factors 3, 4 & 5[7]	What's Needed to Meet Factor 6: Demonstration of plans for fulfilling … responsibilities … in the DPH Community-based Health Initiatives Guideline.
	Staff Report finds			
	MEETS w/ CONDITIONS	**MEETS w/ CONDITIONS**	**MEETS**	**MEETS**
Proposed of new construction and expansion of BH services to Adult and Geriatric population to address existing Patient Panel needs.	✓		✓	✓

[7] 3:Sufficient evidence of compliance and good standing with federal, state, and local laws and regulations
4: Sufficient documentation of the availability of sufficient funds for capital and ongoing operating costs necessary to support the Project without negative impacts or consequences to the Applicant's existing Patient Panel.
5: The … Project, on balance, is superior to alternative and substitute methods for meeting … Patient Panel needs

Factor 1: Patient Panel[8]

The Applicant is an independent community hospital that is also a disproportionate share hospital located in Hampden County in western Massachusetts. As discussed later in this report, pockets of the County are designated as medically underserved.

Demographic Profile

The patient population to be served by the Applicant is ~52,000 per year. Table 1 below presents Fiscal Year 2019 patient information. The overall volume of patients served has dropped in 2020 the Applicant reports[9] as a result of the COVID-19 emergency.

Table 1: Overview of Total[10] Patients

Annual Total Patients (FY19)	51,235
Gender (FY19)	
Female	55%
Male	45%
Age (FY19)	
0-17	12.76%
18-64	69.70%
65+	17.54%
Race/Ethnicity (FY19)[11]	
Hispanic	55.12%
White	40.12%
Black/African American	3.70%
Asian	0.45%
American Indian/Alaska Native	0.03%
Native Hawaiian/Other Pacific Islander	0.02%
Other	0.28%
Unknown	0.28%
PSA comprised of 9 communities	184,481

Staff notes the following observations about these data below:

- **Age** – The 18-64 age cohort comprises the majority ~70% of patients; and ~18% of the total patient population is 65+.
- **Patient Origin** – The geographic composition of the patient panel is from Hampshire, Hamden counties, and the Greater Pioneer valley. The majority of the patients live in nine communities.[12]

[8] 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…(2) If the Proposed Project is for a new facility and there is no existing patient panel, Patient Panel means the anticipated patients

[9] Annualized from the first 7 months of CY 2020, its discharges were 43,153

[10] Includes discharges all services and includes of the Psychiatry, ED, Inpatients, and Obstetrics

[11] Based on self-reporting

- **Race/Ethnicity** – Latinos comprise 55% of total discharges reflecting the population of the town of Holyoke, which has a Latino population of ~52%
- **Health Status** – Staff notes that HMC's service area is located in Hampden County, which consistently ranks #14 (last) Overall in Massachusetts and fluctuates in the bottom quartile for the four health status indicators: Quality of Life, Health Behaviors, Social and Economic Factors, and Physical Environment.[13]

The HMC payer mix for three categories for FY 2019 is shown in Table 2 below**.** Staff made additional inquiries about the large proportion of payments classified as "Other." The Applicant provided a detailed response for Total Hospital Discharges by payer that shows it is comprised of ~26% Medicaid managed care plans. Overall the public payer mix comprises- ~77% of all patients,[14] which qualifies it as a disproportionate share hospital. Additionally, commercially insured patients represented about 12.4%. Further the additional information provided shows that approximately one quarter of payments was for risk contracts**.**

Table 2: Payer Mix 2019

Payer Category	Total Hospital Discharges	ED BH Visits	BH Hospital Discharges[15]
Medicare	23.8 %	28.9 %	29.5%
Medicaid	22.5%	23.6%	23.3%
Commercial	12.4%	9.6 %	18.9%
Self-Pay	4.6 %	3.3%	0.5%
Other*	37.0%	34.6%	27.8%
Unknown	0.04%	0.01%	0.0%
*~26% is managed Medicaid; 4.8% is Dual Eligible; and the remaining ~6% is Workmen's Comp and Veterans			

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 expansion of service. We also assess whether the Applicant has demonstrated that the Proposed Project will meaningfully

[12] Holyoke, Chicopee, South Hadley, Granby, Easthampton, Southampton, Westhampton, West Springfield, Belchertown

[13] *County Health Rankings,* The Robert Woods Foundation (www.rwjf.org) funds an array of programs focused on building a national culture of health wellness and regularly publishes County Health Rankings by state.

[14] It includes managed care Medicaid and Medicare plans, Veterans, and Champus/Tricare and VA Medical Center.

[15] Definitions of chart headings:

A. **Total Hospital Discharges:** All Emergency Department, inpatient, and observation discharges
B. **Behavioral Health Visits Within Emergency Department:** Patients seen in the Emergency Department that had a behavioral health diagnosis
C. **Adult Inpatient Psychiatric Discharges:** Patients discharged from the inpatient psychiatric unit

contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

Factor 1: a) Patient Panel Need

The Applicant attributes the need for additional Psychiatric beds to two interrelated factors.

1. Need to accommodate HMC's current patient population; and
2. Need to address regional demand due to
    a. The closure of a facility in the region; and
    b. An increasing incidence of BH conditions of the aging population

1. Need to accommodate Current Patient Needs.

Currently, the Applicant operates 20 inpatient adult psychiatric beds and a six-bed locked BH unit in the Emergency Department. Over the three year period from 2017 to 2020, despite partial closures in 2019 for renovations, the site experienced a steady demand for services while operating with high occupancy rates. (Table 3) The Applicant describes the inpatient unit as a "relatively small twenty (20) bed unit retrofitted from a medical surgical floor." It stresses that the severity of patients has increased which has extended the lengths of stay and that "introducing two or three patients with highly challenging behaviors can significantly alter and impact the clinical experience for other patients, even leading to requests for discharge against medical advice."[16] The applicant asserts that the Proposed Project will be designed to be safe and pleasant and to meet the specific individual needs of psychiatric patients.

Table 3

Inpatient Psychiatric Discharges				
Calendar Year	**2017**	**2018**	**2019***	**2020**
Avg. Discharges/Mo.	52	57	49*	55
Avg. Length of Stay	9.8	9.4	10.0	10.2
Total / Year	629	690	593*	666+
* decline due to renovations-two beds closed for 2 months, reducing capacity				
+ increase due to closure of another facility in service area				

The Applicant states that the need for inpatient psychiatric beds had been longstanding and that planning for the project had been underway prior to the pandemic and the closure of Providence Behavioral Health's (PBH) seventy-four (74) bed facility. The findings of HMC's 2019 Community Health Needs Assessment (CHNA) revealed through focus groups and surveys that behavioral health concerns ranked above all other health concerns.[17] Indeed, the average wait hours from the Emergency department to finding a bed at a facility has increased over the years from twenty-two hours in 2017 to twenty eight in 2019 as Table 4 shows.

[16] DoN Application P. 71

[17] Surpassing concerns for obesity, cancer, diabetes, and asthma

Table 4

Inpatient Psychiatric Bed		
Year	**ED-Wait Avg. Wait Hours**	**Avg # Discharges per Month**
2017	22	52
2018	26	57
2019	28	49*
Jan 1- July 31, 2020	30	55
June 2020	30	71+
* decline due to HMC partial closure for renovations		
+ sharp increase due to closure of another facility in service area		

2. Need to address the psychiatric needs of the geriatric population

Massachusetts is seeing a growing aging population, with persons 65 years and older expected to represent a quarter of the population by 2035.[a] Further, patients age 65 and older make up a significant percentage of HMC's overall patients (approximately 18%). In the Applicant's service area, the only geriatric psychiatric treatment units recently closed leaving a void. These patients need purpose designed programs and facilities. Currently, there are no dedicated geriatric beds in the region to address the particular needs of the frail elderly.

3. Need to improve access due to closure of a local psychiatric facility

According to the Applicant, the impact on HMC of the May 31, 2020 closure of Providence Behavioral Health (PBH), was immediate. This is reflected by the dramatic increase in the average number of patients waiting in the ED for a Psychiatric bed: from 7 to 11 (57%) in one month. As shown in Table 4, beginning in June 2020, the average monthly discharges rose from 55 to 71 patients (29% increase). This surge was not only in inpatient admissions but also in patients needing psychiatric assessments, as well and in acuity of patient psychopathology that create a strain on the HMC physical space, resources and services that are ongoing. " The Applicant stresses that "introducing two or three patients with highly challenging behaviors can significantly alter and impact the clinical experience for other patients, even leading to requests for discharge against medical advice."

The Applicant states the proposed project will allow HMC to better accommodate current and anticipated volume growth and it asserts that the Proposed Project will be designed to be safe and pleasant and to meet the specific individual needs of psychiatric patients.

There are three other hospitals with Adult Inpatient units and services within the Applicant's service area with a total of 70 beds.[18] When combined with the Applicant's 20 adult psychiatric beds there are a total of 90 adult beds in the region.

[18] American Hospital Directory Cost Report Database. They are Baystate Medical Center, Baystate Noble, Cooley Dickenson

To determine the number of beds needed, the Applicant examined numerous bed need studies and projections from researchers and professional organizations. The range in bed needs these studies suggest take into account a number of factors including demographics, acuity, urban vs rural setting, and transportation. These studies project a bed need per 100,000 population ranging from 38-47.[19]

Based on its current demographic and community profile, the Applicant believes that a conservative bed need for the region is 47 per 100,000 adult population (18-64) , and 46 per 100,000 for the geriatric population (65+), yielding a need for 171 adult and 41 geriatric psychiatric beds to service their patient population as well as the service area. With the completion of the Proposed Project, there would be 118 adult and 36 geriatric psychiatric beds in the service area.

Analysis

Staff reviewed the Proposed Project and believes it will address the patient panel need and will result in improvements in the quality of life for patients and staff all of whom have been strained by the additional demands following the closure of a local facility that offered psychiatric assessments and inpatient services to all three age cohorts.[20]

- Through presentation of increasing wait times at the hospital, and number of patients in the ED waiting for transfer to an inpatient bed, along with increasing discharge rates, the Applicant has demonstrated that the Proposed Project would provide much needed inpatient psychiatric capacity.
- The Proposed Project will provide greater access to services in the region, including two dedicated 18-bed units designed for the unique needs of geriatric patients, and two 24-bed units for adults that will allow for greater flexibility for designing clinical programming to meet the needs of the community.

Given that this is a broad geographic area, patients who seek services at the hospital may have to travel. They then face long ED wait times to receive their treatment, and as a result possibly postpone treatment. Such delays have been identified as a barrier to health services, including delays in receiving appropriate care, increased complications, and increased hospitalizations.[b] Having a greater number of beds to offer timely assessments, admission and treatment will benefit patients in a service area that consistently[21] ranks #14 (last) overall in Massachusetts and fluctuates in the bottom quartile for four key health status indicators.

Staff concurs that if unaddressed, the community will continue to suffer from an increasing severity of mental illness due to delays in access to treatment for both in- and out-patient care.

Factor 1: b) Public Health Value, Improved Health Outcomes and Quality of Life; Assurances of Health Equity

The Applicant asserts that the Proposed Project will enable it to meet growing need for behavioral health treatment which will lead to improved health outcomes by:

[19] DoN application P. 80
[20] Children, Adults and Geriatric
[21] DoN Staff searched to back 2011 and found Overall, Hampden ranked last every year
https://www.countyhealthrankings.org/app/massachusetts/2011/rankings/hampden/county/outcomes/overall/snapshot

- **Contributing to improved health outcomes.** Reducing the 20 hours of boarding time for needed inpatient treatment will assist in earlier diagnosing and treating[c] of patients. This will potentially reduce treatment complications and contributing to better health outcomes. [d]
- **Improved access through enhancing the availability of local patient service.** Through the enhanced availability of these local services, needed follow-up care in the IOP within the Pavilion will be less burdensome and stressful for patients and family. Increasing local capacity for service will also improve patient care experience and patient satisfaction.

Analysis

The burden of mental illness on patients, families, and communities has been well documented in the literature. Select statistics on those effects are below.[e]

- 20.6% of U.S. adults experienced mental illness in 2019 (51.5 million people).
- Individuals with depression have a 40% higher risk of developing cardiovascular and metabolic diseases than the general population.
- 18.4% of U.S. adults with mental illness also experienced a substance use disorder; in 2019 this represented 9.5 million individuals.
- Generally, the rate of unemployment is higher among U.S. adults who have mental illness (5.8%) compared to those who do not (3.6%).
- High school students with significant symptoms of depression are more than twice as likely to drop out compared to their peers.
- At least 8.4 million people in the U.S. provide care to an adult with a mental or emotional health issue, providing an average of 32 hours per week providing unpaid care.
- Across the U.S. economy, serious mental illness causes $193.2 billion in lost earnings each year.

With the implementation of this project, staff finds that the patient experience will likely be enhanced through improved local access to care. Staff concurs that timely access to treatment will improve course of treatment and recovery. As a result, patients may experience a greater sense of well-being. Patients and their families benefit from co-located services across the continuum. During IP stays, it is easier for families to participate in the development of care treatment plans and when patients are discharged and/or step down from one level of care to another there is less likely to be disruption in care when treatment is within their community and within the same system care. All of these issues are particularly relevant for patients in rural areas for whom transportation and socioeconomic factors pose additional burdens.

The Applicant has noted several measures, including wait times in the ED, to assessments, and to increasing the number inpatient beds, which may lead to improved outcomes.

Health Equity

The Applicant states that it seeks to provide equitable health care to all populations, including those deemed underserved. Currently HMC provides services for poor, medically indigent, and/or MassHealth eligible individuals as demonstrated through their payer-mix of various Medicaid plans accounting for

48.4% of total payments. In addition to the need for behavioral health services, the 2016 CHNA initiative identified a need for additional primary care and dental care providers for HMC's service area residents. Further fifty-four percent (54%) of Hampden County residents live in a healthcare professional shortage area (HPSA), compared to 15% of Massachusetts residents overall (Center for Disease Control, Health Resources and Services Administration, (HRSA) March 2015). Additionally, the U.S. HRSA has designated medically underserved areas and populations within Hampden County.[22]

As further detailed throughout this narrative, the Proposed Project will increase access to behavioral health services with the expanded capacity of sixty-four (64) additional beds. This will reduce Emergency Department boarding and expedite the delivery of the needed care through access to inpatient services within a service area that demonstrates low rankings on many previously discussed health measures. Underserved HMC service area residents who experience challenges accessing care due to the limited availability of providers often begin their treatment process by going to the hospital emergency room with long reported wait times and increasing numbers of patients in the Applicant's ED even prior to the closure of PBH, which has been widely studied and reported on in Massachusetts.

Individuals living below the poverty level are nearly 2.5 times more likely to have depression than those living at or above the poverty level.[f] Additionally, studies show that underserved populations, including ethnic minorities, are as likely to be at risk for mental health conditions as their more affluent white counterparts but receive substantially less treatment.[g]

HMC offers comprehensive and broad-based interpreter services to all patients to provide equal access to behavioral health services and to ensure that language is not a barrier to accessing care. The Patient panel has a diverse population as shown in Table 1, in 2019, 55% of the patients treated were Hispanic.
The hospital has a robust interpreter service with over 15 languages offered, including Spanish, Cambodian, Chinese, Hebrew, Polish, Russian, Tagalog, Portuguese, Ukrainian, and American Sign Language. These services will be expanded to the Pavilion.

Analysis

Staff finds that through the provision of sixty additional psychiatric beds in this currently medically underserved ethnically and economically diverse region, with their planned expanded language access, the Applicant has provided reasonable assurances of improved health equity at its site. Staff finds that the Applicant's Language Access and Assistive Services Plan is sufficient, with the understanding that, as an expanded service, the Applicant will as part of the Standard Conditions of DoN approval need to comply with requirements of the Office of Health Equity.

Factor 1: c) Efficiency, Continuity of Care, Coordination of Care

Holyoke Medical Center launched a new electronic health (EHR) information system, Meditech Expanse on October 1, 2020. It is a fully integrated electronic health information system, designed to improve coordination, communication, and continuity of care among caregivers, hospital based behavioral health service providers, and the primary care physicians within the Holyoke Medical Group. Following the

[22] Medically underserved status is based on availability of primary care providers, infant mortality rate, poverty rate, and proportion of older adults.

concept of "One Patient, One Record" the Applicant states it is seamless, safer, and provides a higher quality experience for patients across the continuum of behavioral health and primary care services as it ensures the comprehensive, integrated delivery of behavioral health services. This technology will be extended to the Proposed Project. As a result, the proposed Pavilion will provide not only a physical space designed to address the unique needs of the patients with behavioral health issues, but also deliver a highly advanced technological environment focused on service integration.

Providers who are outside HMC are encouraged to participate in their patients' care. The EHR system, and the discharge planning process is structured to proactively seek the inclusion of outside providers and family members. While HMC has the capability to provide EHR interface connectivity for providers who are outside of HMC's existing network the Applicant reports that there has been limited interest. Therefore, the Applicant continues to maintain active referral and information exchange pathways, consistent with all state and federal privacy policies whereby HMC's behavioral health services routinely obtain required EHR patient release of information documentation. With that release, pertinent clinical information is routinely shared throughout the treatment process, whether inpatient, PHP or IOP.[23]

Analysis

Staff notes that access to integrated health information technology systems directly impacts health outcomes by reducing fragmentation and improving coordination among care providers.[h]

Staff concurs that the Proposed Project along with the expansion of the EHR to the Proposed Project will improve coordination and continuity of care through better records integration which creates more efficiencies for care providers. Studies show that integrated health information technology systems directly affect health outcomes, and improve care coordination, reduce errors, improve patient safety, and support better patient outcomes.[i]

The availability of integrated records and co-located services benefits patients by providing better care coordination, leading to better outcomes, and improving their quality of life. Staff believes that as Holyoke Medical Center continues to move forward with providing a better experience across the continuum of care, the functionality of the EHR will be increasingly utilized as a tool to promote greater interoperability across all behavioral health providers during treatment and for discharge.

Factor 1: d) Consultation

The Applicant has provided evidence of consultation, both prior to and after the Filing Date, with all 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 of the Patient Panel

The Department's Guideline[24] 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

[23] This is the assigned responsibility of HMC's social workers, utilization review coordinators, and psychiatrists, when needed. The release is to cover correspondence with pharmacy, psychiatrists, primary care physicians, therapists and insurers as needed.
[24] Community Engagement Standards for Community Health Planning Guideline

Patient Panel. Regulations state that efforts in such consultation should consist of engaging "community coalitions statistically representative of the Patient Panel."[25]

To ensure sound community engagement for the Proposed Project, the Applicant engaged in extensive discussions with community stakeholders explaining the projects and seeking support. Many letters of support including from the Department of Mental Health's Assistant Commissioner for Clinical and Professional Services/Director of Licensing were included with this Application.

Analysis

Staff notes that the COVID-19 emergency appears to have impacted the Applicant's ability to hold community meetings. However, Staff finds that the Applicant demonstrated its commitment to the community by developing their project around needs identified in the CHNA which were then magnified by the aforementioned unusual demands placed upon that facility. Therefore, Staff finds that the Applicant has met the minimum required community engagement standard of *Consult* in the planning phase of the Proposed Project.

Factor 1: F) Competition on Price, Total Medical Expenses (TME), Costs and Other Measures of Health Care Spending

The Applicant asserts that the Project will have no discernible impact on competition in the Massachusetts healthcare market based on price, total medical expenses, provider costs, or other recognized measures of health care spending. Further, that the Proposed Project seeks to address the high, unmet demand for adult and geriatric inpatient psychiatric beds in Western Massachusetts, thereby expediting access to beds which can reduce costs and spending through several means described herein.

ED boarding time

- The Applicant's average ED wait time was 30 hours (Table 4). It cited a report that asserts that the national average time for a psychiatric patient boarded in a medical hospital is between 8 and 34 hours, with an average incremental cost of $2,264 largely never realized.[26] Reduced boarding times therefore saves money.
- Expedited treatment reduces the strain on the patient, families and staff in the ED. The Applicant states that since the closure of the local facility, they have seen more acute patients including those with increased aggression towards themselves and others. Their ability to rapidly triage these patients into an appropriate psychiatric bed can reduce the time in the more costly acute ED setting reduces stress on hospital staff, the patient and his or her family.
- Transfers out of the region cost money and can make both the establishment and adherence to aftercare plans more difficult for patient and family increasing the possibility of relapse. Building additional capacity in the Hamden County region will reduce these risks.
- Treatment of the elderly with behavioral health needs in a purpose designed environment with dedicated programs that are sensitive to the specific health needs of the population can help maintain health, and focus on specific risks such as falls, thereby saving money.

[25] DoN Regulation 100.210 (A)(1)(e). https://www.mass.gov/files/documents/2018/12/31/jud-lib-105cmr100.pdf
[26] The True Cost of the Mental Health Crisis in the Emergency Department, Healthcare Business Today, August 30, 2019

- Because current psychiatric facilities are operating at 100% capacity, ED clinicians and staff are diverting time from patients (with both psychiatric and medical needs) to search for beds for each patient being boarded.

The Applicant states "*We believe this Proposed Project will serve to greatly reduce or eliminate these operational bottlenecks, expedite referrals, and save the citizens of the Commonwealth preventable, unnecessary healthcare expenditures.*"

As a result, improving the throughput of patients with acute behavioral health needs can result in lower provider, payer and patient out-of-pocket expenses, leading to a reduction in TME. When services can be delivered to patients in a timely, cost effective manner, the Applicant states, it will be able to ensure its competitive position. It has been established that improving access to care is likely to reduce healthcare utilization and spending.[j, k]

Staff finds that with approval of recommended conditions, while difficult to measure on an individual service-specific level, on balance the requirement that the Proposed Project will likely compete on the basis of price, TME provider costs, and other measures of health care spending have been met.

Recommended Conditions, and Description of Proposed Measures, FACTOR 1
As a result of information provided by the Applicant and additional analysis, staff finds that with the standard reporting requirements outlined below, the Applicant has demonstrated that the Proposed Project has met Factor 1(a-f).

Factor 2: Cost containment, Improved Public Health Outcomes and Delivery System Transformation

The Applicant discussed how the Proposed Project will align with the Commonwealth's goal for cost containment, as well as contribute to improved public health outcomes.

Cost Containment

The Applicant notes that the Commonwealth has recognized the need for additional behavioral health bed capacity and the impact of the shortfall of beds on ED boarding, both fiscally and from the lens of quality of patient care. Further evidence of this is found in the release of the EOHHS policy Expedited Psychiatric Inpatient Admission (EPIA) as well of Division of Issuance of Bulletin 2018-01: Prevention of Emergency Department Boarding of Patient with Acute Behavioral Health and/or Substance Use Disorder Emergencies. The Applicant states that with the addition of the Pavilion, which includes an age-specific purpose designed continuum of care, much needed care will be delivered appropriately and in a cost-effective manner. As noted in 1(e and f), the Applicant suggests that cost savings may occur from the reduction of wait-times in the ED allowing for faster, more appropriate diagnosis and treatment. The Applicant also asserts that for patients and family, the Proposed Project will reduce stress as a result of better access to local providers. A recent analysis by the Center for Health Information and Analysis (CHIA) states there is a growing body of evidence suggesting that patients with comorbid behavioral health conditions are at higher than average risk of medical and/or BH readmissions. Patients with comorbid behavioral health conditions had medical inpatient stays that were on average 1.3 days longer and readmission rates that were 95% higher than

those without a comorbid behavioral health condition.[27] Additionally, it states that as a component of readmission reduction, there is now recognition in the health care community that behavioral health issues need to be addressed. Of note, populations in high public payer settings, such as Holyoke, disproportionately impact costs with Medicaid adults being 47% more likely to have any behavioral health comorbidity than Medicare adults and 55% more likely to have any behavioral health comorbidity than commercially insured. HMC is a designated high public pay (HPP) Hospital with public payer mix of 77.2%.[28] The community served by the hospital experiences health disparities driven by such social determinants of health (SDOH) as poverty, food / housing insecurity, and access to care and transportation. Exposure to such disparities often places community members at increased risk for factors connected to mental health and substance use disorders. CHIA reports Major Depression as the third most common inpatient case or related diagnosis group treated at HMC in FY 18, representing about 14% of the regional discharges for that diagnosis category.[29]

Analysis: **Cost Containment**

Staff believes the Proposed Project has the potential for the Applicant to maintain reasonable operating costs through the efficiency means described above.

Cost containment on a statewide level is impacted through pricing, which is a function of what providers charge payers and what payers agree to pay. While payment contracts between individual providers and commercial payers are confidential, those among providers and Medicare and Medicaid are relatively transparent. As a result, staff finds it unlikely that the Applicant's contracts with payers will increase significantly thereby increasing the costs in the commonwealth. On the contrary, it is more likely that there will be cost savings to the system if adequate capacity exists at all levels of psychiatric care so that patients can gain access to the continuum at the appropriate time and level and avoid needing to seek care through the ED.

Patients with MassHealth are the most likely to board[l] and have longer lengths of stay than those with private insurance. A study of Massachusetts ED boarding concluded that behavioral health patients in Massachusetts have lengthy ED visits, particularly those requiring inpatient admissions. Boarding time accounts for the majority of total ED length of stay and varies by insurance, even when other factors known to affect ED length of stay are controlled. Patients with Medicaid and the uninsured had significantly longer total lengths of stay and were more than twice as likely to remain in the ED for 24 hours or greater compared with privately insured patients.[m] Time spent boarding adds costs to the healthcare system while little treatment is administered.

Therefore, the efforts of HMC to improve timeliness of care for mental health patients in the ED will reduce ED boarding and eliminate disparities in care by insurance status. HMC has worked with public payers to ensure adequate payment and will continue to serve those patients.

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[27] Center for Health Information and Analysis report: Behavioral Health & Readmissions in Massachusetts Acute Care Hospitals SFY 2017 (October 2019). https://www.chiamass.gov/assets/docs/r/pubs/19/Behavioral-Health- Readmissions-2019.pdf Cited: July 21, 2019

[28] CHIA Hospital Profiles 2018: https://www.chiamass.gov/assets/docs/r/hospital-profiles/2018/holyoke.pdf

[29] CHIA Hospital Profiles 2018: https://www.chiamass.gov/assets/docs/r/hospital-profiles/2018/holyoke.pdf

As a result of the benefits described above from reduction in boarding, earlier treatment, the establishment and expansion of care continuum of care and care integration, DoN Staff can conclude that expanding services through the Proposed Project will likely meet the cost containment factor.

Improved Public Health Outcomes

The Applicant has discussed in detail how timely access to the appropriate types and levels of psychiatric services along the continuum will lead to more appropriate, earlier effective treatments that may ultimately reduce inpatient treatment times.

Analysis: **Public Health Outcomes**

As detailed elsewhere in this Report, it is clear that improvements in patient health outcomes result from timely care in the appropriate setting. Through the expansion of psychiatric inpatient and outpatient services, patients will gain access to psychiatric assessments leading to placements in the appropriate levels of treatment where their healing can begin. Timely access to treatment can not only reduce boarding times in the ED but reduce lengths of stay in the hospital.

Delivery System Transformation

The Applicant will be enhancing a comprehensive treatment continuum unique to the region that includes onsite ED assessments in a dedicated assessment area, inpatient care in age appropriate treatment units designed with programmatic and physical space flexibility to meet individualized patient need followed by an intensive out-patient treatment onsite and follow-up care at a closely affiliated less intensive treatment center nearby.

Analysis: **Delivery System Transformation**

Central to the goal of **Delivery System Transformation** is the integration of community-based care. The Applicant has described how patients will be assessed for behavioral health needs, placed in the appropriate level of care, and how coordination and follow-up treatment will occur with appropriate affiliated organization in the community. Further, the integration of medical records within their new system is ongoing and the new facility will be fully integrated with the option for interoperability with providers who are outside of the system. As a result of information provided by the Applicant and additional analysis, staff finds that the Applicant has demonstrated that the Proposed Project has met Factor 2.

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

Under Factor 4, the Applicant must demonstrate that it has sufficient funds available for capital and operating costs necessary to support the Proposed Project without negative effects or consequences to the existing patient panel. Documentation sufficient to make such finding must be supported by an analysis by an independent CPA.

The CPA analysis included a review of the underlying assumptions, numerous key metrics, and documents provided by the Applicant including:

- Five-year financial projections Fiscal Year (FY) September 30, 2021 through September 30, 2027.
- The leasing and financing agreements among the parties.
- Audited financial statements for Holyoke Medical Center FY September 30, 2019.
- Historical results of adult psychiatric services provided by the Medical Center.

Inpatient psychiatric revenues encompass Medicare approved rates,[30] and other payer rates based on hospital data and industry averages. Outpatient revenues projections are based on 2019 actual results and anticipated shifts in care acuity through transferring lower level counseling services to another site.[31] The CPA determined that the projections are reasonable, comparable to 2019 actual results.

Salaries and benefits projections are based on 2019 actual results and reflect a sharp increase attributed to the increase in staffing to meet the needs of the additional bed capacity and volume in 2023 and 2024, after which they will increase 2.5% annually for the remaining projected period. Benefits are projected at 23% of salaries and wages. Professional fees included assume all of the physicians will be employed by the hospital and are projected to increase 2.5% annually for the remaining projected period.

Supplies and other expense projections increase annually by 2.5% for the projected period following an initial increase the first year of operation. Ancillary departments are projected based on the non-salary incremental overhead cost per patient day[32] which was consistent with the 2019 reporting. Occupancy costs include lease payments, property taxes, utilities and insurance; this will decrease in 2024 resulting from increased patient days since occupancy costs bring fixed, will not vary with volume.

Capital Expenditures

Based on our discussion with management and the information provided, the total project is estimated to cost $38,300,000 and will be financed by the Leo Brown Group. There will be a limited financial outlay for Holyoke, which frees capital for reinvestment in other capital expenditures in the current facility.

- Through a lease agreement the Applicant will retain ownership of the land and will lease to the Leo Brown Group under a 99-year ground lease.
- The Applicant will own the income stream generated by the Behavioral Health Pavilion.
- The Applicant will lease the building through a triple net lease agreement with the Leo Brown Group.

[30] the 2021 IPF-PPS Final Rule patient level data per the hospitals Pepper Report, MedPac data.

[31] River Valley Counseling Center

[32] per Worksheet A of the 2017 Medicare cost report

- Lease expense is projected at $3,700,000 ($54 per square foot.) for the year ending September 30, 2023 and is projected in increase by 2.5% annually for the remaining projected period.
- Lease terms will be finalized in the final lease and development agreement.

For the years ending September 30, 2023 through September 30, 2027 the projections exhibit net operating margins ranging from 14% to 23%. The lease ratio ranges from 2.17 to 3.03 which demonstrates that the Applicant should have sufficient financial resources to cover lease payments.

Based upon our discussions with management and our review of the information provided, the Project is anticipated to generate positive cash flows from operations of approximately $2,800,000 in 2023 increasing to$ 7,300,000 in 2027.

Upon its review of the projections and relevant supporting documentation, the CPA determined the Project and the anticipated operating surpluses are reasonable and based upon feasible financial assumptions. Accordingly, we determined the projections for the Project are reasonable within the financial capability of the Applicant and will not have a negative impact on the patient panel of Holyoke Medical Center.

Factor 5: Assessment of the Proposed Project's Relative Merit

The Applicant has provided sufficient evidence that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs identified by the Applicant pursuant to 105 CMR 100.210(A)(1). Evaluation of 105 CMR 100.210(A)(5) shall take into account, at a minimum, the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives or substitutes, including alternative evidence-based strategies and public health interventions.

The Applicant considered and rejected one alternative to the Proposed Project which is to maintain the status quo with the existing limited number of beds because it would not result in any of the positive impacts of the Proposed Project listed below, and would negatively impact patient care.

- Quality: Reducing psychiatric boarding in the Emergency Department and the Hospital medical floors will contribute to improved clinical outcomes for patients and increased patient satisfaction. Eliminating psychiatric boarding has also been shown to help maintain a safer physical environment for staff and patients which can increase staff morale.
- Efficiency: Expediting triage and placement in a clinically appropriate, psychiatric program bed creates efficiencies in both the care of the patient and general operations. The elimination of personnel time which is currently needed to conduct ongoing bed searches across the state will result in the savings of tens of thousands of dollars and a demonstrable increase in time devoted to clinical care of patients.
- Capital Expense: financing undertaken by the lessee of the land that will develop, construct, and furnish and own the Pavilion. HMC will lease the building back and own the income stream generated by the Pavilion.
- Operating Costs: Operating costs shall be offset by rapid volume growth and direct cost savings resulting from the reduction or elimination of psychiatric boarding in the Emergency Department.

Analysis

Staff agrees that the alternative of maintaining the status quo cannot be sustained and that the current proposal will eliminate the long wait times and patients delays to treatment and further points out that few if any patients are likely to be transferred out of the region. Due to transportation challenges for elderly, low income and rural populations, the effects of delayed treatment by not going forward with the Proposed Project could negatively affect outcomes and patient satisfaction with added costs related to additional resource use with boarding and the search for appropriate placements. Further, staff finds that the proposed financing structure poses less risk for the Applicant while still maintaining control of their revenue stream. Further, staff believes that patient outcomes and family and staff wellbeing will all likely be improved.

Staff finds that the Applicant has appropriately considered the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives. As a result of information provided by the Applicant and additional analysis, staff finds the Applicant has reasonably met the standards of Factor 5.

Factor 6: Fulfillment of DPH Community-Based Health Initiatives

Summary and relevant background and context for this application: The Applicant is applying for a DoN project that will result in a Tier 2 CHI project. The Applicant submitted its existing Community Health Needs Assessment (CHNA) for Holyoke Medical Center, a Self-Assessment, Stakeholder Assessments, a CHI Narrative, and a Community Engagement Plan.

The Community Health Needs Assessment was conducted in 2019, and outlines community health needs, assets, and planning for 2020-2023. In creating the final CHNA, the Applicant utilized Community Workshops, Interviews with community members and stakeholders, a survey, and additional data collection methods. The CHNA outlines health needs and priorities identified by participants, and key findings include Social and Economic Issues, Access to Healthcare, unmet Communication needs, and Health outcomes.

The CHNA was released on the mySidewalk online platform to provide a user-friendly learning experience for the community. In developing the CHNA, the Applicant worked closely with Baystate Health System, and also engaged with the Regional Coalition of Western MA Hospitals. While not a formal coalition member, the Applicant learned from and adapted practices from the Coalition's processes. For example, the regional coalition embeds a Social Determinant of Health (SDoH) framing into their work through a facilitative exercise, and the Applicant will similarly include SDoH concepts into processes to be carried out by their newly formed CHI Committee.

The Self-Assessment provided a summary of community engagement processes and socio-demographic information, data and highlights related to topics and themes of community needs. Through data analysis, a bi-lingual survey, community workshops, and key informant interviews, the participating community groups and residents identified the key concerns outlined in the 2019 CHNA.

Stakeholder Assessments provided information on the individuals' engagement levels (e.g. their personal participation and role) and their analysis of how the Applicant engaged 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 CHI Narrative provided further detail on the engagement processes throughout the needs assessment phase, and outlined process planning and goals for the development of the CHI Committee, the Allocation Committee, and further engagement activities throughout implementation.

The Community Engagement Plan outlines the Applicant's plans to expand community engagement activities throughout the project period. The Applicant has an existing Community Benefit Advisory Committee and is forming a new CHI committee specific to this planned project. The Applicant utilized a regional infrastructure in assessing community needs and will maintain this focus with the geographies of focus identified in the CE Plan.

This is the Applicant's first DoN since the adoption of the 2017 Community Health Initiative Guidelines, and the associated CHI represents an opportunity to center community voice and goals with a funding source not readily available to the region. DPH staff will continue to work with the Applicant to confirm they are aware of and connected to ongoing work in the region of focus, and to ensure the onboarding of CHI Committee members instills baseline understanding of the SDoH, root causes, and upstream work. DPH staff will formally connect with the Applicant prior to submission of the Health Priority Strategy Form to facilitate reflection of Health Priority principles.

The Applicant has maintained a rigorous meeting schedule throughout the pandemic and has a plan for further engagement activities which include community workshops, a survey with a completion incentive, and continued virtual convening. The Applicant's CHI Advisory Committee is exploring transparent investment strategies, including a Request for Proposals (RFP), which if selected, will include a Bidders Conference. With the administrative funds, the applicant's early plans are to support consultant time, external facilitation, communication, and reporting and dissemination of lessons learned and best practices. The anticipated timeline for the CHI activities includes continued meeting of the CHI Advisory Committee, identifying the Health Priorities Strategies 2 months post approval, the first meeting of the Allocation Committee 3-4 months post approval, and an anticipated release of funding within 8 months post approval. The timeline, ongoing engagement processes, and use of administrative funds are all appropriate and in line with CHI planning guidelines.

Summary Analysis: As a result of information provided by the Applicant and additional analysis, staff finds that with the conditions outlined below, and the ongoing communication on items outlined above, the Applicant will have demonstrated that the Proposed Project has met Factor 6.

Findings and Recommendations

Based upon a review of the materials submitted, Staff finds that, with the addition of the recommended conditions detailed below, the Applicant has met each DoN Factor for the Proposed Project, and recommends that the Department approve this Determination of Need, subject to all applicable standard and Other Conditions.

Conditions

1. Of the total required CHI contribution of $1,913,562.70
    a. $464,038.96 will be directed to the CHI Statewide Initiative
    b. $1,392,116.86 will be dedicated to local approaches to the DoN Health Priorities

c. $57,406.88 will be designated as the administrative fee.

2. To comply with the Holder's obligation to contribute to the Statewide CHI Initiative, the Holder must submit a check for $464,038.96 to Health Resources in Action (the fiscal agent for the CHI Statewide Initiative).
   a. The Holder must submit the funds to HRiA within 30 days from the date of the Notice of Approval.
   b. The Holder must promptly notify DPH (CHI contact staff) when the payment has been made.

3. Pursuant to 105 CMR 100.310(A)(12), ongoing reporting is required to DoN. In order to measure the impact of the Proposed Project, staff recommends ongoing evaluation of accessibility metrics such as, ED wait times, boarding, length of stay in the ED, and the number of patients who board in the ED longer than 12 hours. The Applicant noted, and staff confirmed that it tracks and reports over sixteen specific measures to DMH. The Applicant will continue to use these measures in reporting to DoN. Additionally, there are specific measures relative to ED hospital encounters, including boarding, that hospitals currently report to DPH, some of which are included in Table 4 above. Staff notes that the Applicant has lapsed in such reporting and therefore recommends that timely monthly reporting of these measures with the inclusion of the behavioral health data for each data element. The Applicant will also report the measures as required to DMH and DPH- Bureau of Health Care Safety and Quality (BHCSQ) to DoN. In addition, for select measures reported to BHCSQ, the Applicant will provide behavioral health level data as well.

   1) ED patient visits each month
      a. Total
      b. Behavioral health

   2) Median time from ED arrival to ED departure for admitted patients
      a. Medical
      b. Behavioral Health

   3) Median time from ED arrival to ED departure for discharge patients
      a. Medical
      b. Behavioral Health

   4) Total number of all patients remaining in the ED for 12 hours or more (includes admissions, transfers, observations stays, and discharges)
      a. Medical
      b. Behavioral Health Behavioral Health

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