

STAFF REPORT TO THE PUBLIC HEALTH COUNCIL FOR A DETERMINATION OF NEED	
Applicant Name	Encompass Health Corporation
Applicant Address	9001 Liberty Parkway, Birmingham, AL 35242
Filing Date	September 27, 2023
Type of DoN Application	Substantial Capital Expenditure
Total Value	\$5,862,759.00
Project Number	#23050511-HE
Ten Taxpayer Group	NONE
Community Health Initiative	\$293,137.95 (Statewide Fund)
Staff Recommendation	Approval
Public Health Council	January 10, 2024
<p style="text-align: center;"><u>Project Summary and Regulatory Review</u></p> <p>Encompass Health Corporation (“Applicant”) is filing a Notice of Determination of Need with the Department of Public Health for the addition of 17 rehabilitation beds and associated renovations at Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC, a non-acute hospital licensed by the Department, located at 222 State Street, Ludlow, MA, 01056. The capital expenditure for the Proposed Project is \$5,862,759.00; the Community Health Initiatives (“CHI”) contribution is \$293,137.95 to the Statewide Fund.</p> <p>This DoN application falls within the definition of 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.</p>	

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Applicant Background and Application Overview

Encompass Health Corporation

Encompass Health Corporation (“Encompass Health” or “Applicant”), is a national provider of inpatient rehabilitation services (“rehab”) with 157 inpatient rehabilitation hospitals in 37 states and Puerto Rico. In Massachusetts, Encompass Health wholly owns and operates three facilities and is majority owner of a fourth facility, all licensed as non-acute hospitals. These hospitals carry the Center for Medicaid Service (CMS) designation as inpatient rehab facilities (IRF), which are free standing rehabilitation hospitals and rehabilitation units in acute care hospitals that provide an intensive rehabilitation program.¹

Table 1: Encompass Rehabilitation Hospitals in Massachusetts

Name	Licensed Beds	Location
Encompass Health Rehabilitation Hospital of Braintree,	187	Braintree
Encompass Health Rehabilitation Hospital of New England	179	Woburn, Beverly, Lowell
Encompass Health Rehabilitation Hospital of Western MA	53	Ludlow
New England Rehabilitation Services of Central Massachusetts, Inc., d/b/a Fairlawn Rehabilitation Hospital ²	110	Worcester

Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC

Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC (“Encompass Western Mass”) is a 53-bed facility licensed as a non-acute hospital and designated as an IRF, providing intensive inpatient rehabilitation therapy to help patients maximize independence after a life-changing illness or injury. The services address a wide range of diagnoses, including but not limited to the following: stroke; brain injury; neurological conditions; joint replacement; orthopedic; hip fracture; spinal cord injury; amputation; Parkinson’s Disease; Multiple sclerosis; burns; pulmonary/respiratory conditions; and pain management.

Proposed Project

The Applicant seeks to add 17 rehabilitation beds to its 53 licensed beds through the build-out and renovation of 7,260 gross square feet of available vacant space at the Hospital, bringing the total licensed inpatient rehabilitation beds to 70. The additional 17 beds will be private rooms large enough to accommodate caregivers and family members, each with its own private wheelchair accessible bath. The Applicant expects no significant changes to its Payer Mix as a

¹ Patients who are admitted to IRF’s must be able to tolerate three hours of intense rehabilitation services per day. CMS collects patient assessment data only on Medicare Part A fee-for service patients. These facilities are exempt from the Medicare Hospital PPS and are paid under the IRF Prospective Payment System (PPS) effective 1/1/2002. [Inpatient Rehabilitation Facilities at CMS.gov](https://www.cms.gov/IRF)

² Majority owned by Encompass Health Fairlawn Holdings, LLC (Encompass Health Fairlawn Holdings, LLC is a wholly owned subsidiary of Encompass Health Corporation) and minority owned by UMass Memorial Health Ventures, Inc.

result of the Proposed Project. The Applicant provides data, detailed in the next section, showing that the Hospital has been operating at capacity, and the service area would benefit from access to additional post-acute beds.

Factor 1

In this section, we assess if the Applicant has sufficiently addressed Patient Panel need, public health value, competitiveness and cost containment, as well as community engagement for the expansion of the rehabilitation beds.

Patient Panel³

Table 2 below shows the Patient Panel for the 36-month period covering Calendar Year (“CY”)2020 through CY2022. During that timeframe, the number of Encompass Health - All MA Hospital patients utilizing services increased 12.6% and Encompass Western Mass patients increased by 9.9%.

Table 2: Overview of Encompass Health Patient Volume

System/ Hospital	CY2020	CY2021	CY2022	% Change
Encompass Health – All MA Hospitals	6,019	6,426	6,777	12.6%
Encompass Western Mass	1,167	1,236	1,282	9.9%

Table 3 shows the demographic characteristics of the Encompass Health Patient Panel. Staff notes the following observations:

- **Age-** The vast majority of admissions (approximately 70% annually) are for patients ages 65 and over, which the Applicant notes is typical for comprehensive inpatient rehabilitation programs generally and for Encompass Health specifically.
- **Race/Ethnicity-** The majority of the Patient Panel (~80%) identifies as white.
- **Payer Mix-** The majority of the Applicant’s patients are enrolled in the Medicare program, either through the traditional Medicare Fee-For-Service (“FFS”) program or Medicare Advantage.
- **Patient Origin-** residents of Middlesex County comprise the largest portion of patients cared for at the Applicant’s IRFs, representing approximately 30% of total admissions each year.

Table 3: Encompass Health Patient Panel Demographic Profile

	CY2022 Totals
Total Unique Patients	6,777
Gender	
Female	48.4%

³ 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.

	CY2022 Totals
Male	51.5%
Total	100.0%
Age	
< 18 to 34 ⁴	2.6%
35 to 49	5.3%
50 to 64	21.4%
65 to 74	26.1%
75 to 84	29.1%
85 and Older	15.4%
Total	100.0%
Race/ Ethnicity	
White	79.5%
Other and Unknown	8.3%
Black or African American/ Black Hispanic ⁵	7.6%
Asian	2.7%
Hispanic or Latino	1.7%
Biracial/Native American ⁶	0.2%
Total	100.00%
Payer Mix	
Medicare	57.9%
Medicare Advantage	15.0%
Medicaid	8.9%
HMO/PPO	8.7%
Blue Cross	5.8%
Self-Pay/Other	2.4%
Commercial	0.6%
Workers Comp	0.6%
Total	100.00%
Patient County of Origin	
Middlesex County	30.2%
Hampden County	13.0%
Norfolk County	12.3%
Essex County	10.9%
Plymouth County	9.3%
Suffolk County	8.7%
Hampshire County	4.0%
Bristol County	3.2%
Unknown	1.7%
Barnstable County	1.4%
Franklin County	1.3%
Worcester County	1.3%
Other ⁷	2.8%

⁴ Combined "<18" with "18-34" for patient confidentiality.

⁵ Includes "Black or African American" and "Black Hispanic" for patient confidentiality.

⁶ Includes "Biracial" and "Native American" for patient confidentiality.

⁷ Includes Out of State, Berkshire County, Dukes County, and Nantucket for patient confidentiality.

	CY2022 Totals
Total	100.0%

Note: Percentage totals may not equal 100% due to rounding.

Table 4 shows the demographic characteristics of Encompass Western Mass, the facility targeted in the Application. Staff notes the following observations:

- **Age-** Similar to the Applicant, the vast majority of the Hospital's patients (more than 75% annually) are ages 65 and over. The Applicant notes that the average age of the Hospital's patients during the most three recent calendar years was 73.⁸
- **Race/Ethnicity-** The Hospital's patient population reflects the demographic profile of the Proposed Project's home county (Hampden), with the majority identifying as white.
- **Payer Mix-** Over 78% of patients are covered by a type of Medicare insurance.
- **Patient Origin-** Residents from Hampden and Hampshire counties combined account for approximately 89% of the Hospital's annual admissions.

Table 4: Encompass Western Mass Patient Population Demographic Profile

	CY2022 Totals
Total Unique Patients	1,282
Gender	
Female	53.1%
Male	46.9%
Total	100.0%
Age	
< 18 to 34 ⁹	3.3%
35 to 49	4.6%
50 to 64	16.7%
65 to 74	24.2%
75 to 84	31.0%
85 and Older	20.2%
Total	100.0%
Race	
White	91.4%
Black or African American/Black Hispanic ¹⁰	3.9%
Hispanic or Latino ¹¹	2.6%
Asian/Other/Unknown ¹²	2.1%
Total	100.00%
Payer Mix	
Medicare	68.3%
Medicare Advantage	10.3%

⁸ Commensurate with the Applicant's average age of 71 across all of its IRFS nationally. See Encompass Healthcare Quarter 4 2020 Investor Handbook, available at <https://investor.encompasshealth.com/investor-resources/investor-reference-book/default.aspx>.

⁹ Combined "<18" with "18-34" for patient confidentiality.

¹⁰ Includes "Biracial-Black" and "Black Hispanic" for patient confidentiality.

¹¹ Includes "American Indian Hispanic" for patient confidentiality.

¹² Includes "Hawaiian/Pacific Islander", "Alaska Native" and "American Indian" for patient confidentiality.

	CY2022 Totals
HMO/PPO	7.6%
Medicaid	6.9%
Other ¹³	3.74%
Blue Cross ¹⁴	3.0%
Total	100.00%
Patient County of Origin	
Hampden	68.1%
Hampshire	20.8%
Franklin	6.3%
Out of State	1.9%
Worcester	1.2%
Other ¹⁵	1.7%
Total	100.0%

Factor 1: a) Patient Panel Need

In this section, staff assesses if the Applicant has sufficiently addressed Patient Panel need for the Proposed Project. The Applicant attributes Patient Panel need for the Proposed Project to the following:

- 1) High Occupancy Rate
- 2) Projected Increases in 65+ Population
- 3) Importance of Proximity of Care for Family Participation

1) The Hospital Operates at a High Occupancy Rate

Patients in need of comprehensive inpatient rehabilitation services in Western Massachusetts rely on Encompass Western Mass to provide that level of care, as demonstrated by the Hospital's increasingly high occupancy rate detailed in Table 5. The Applicant notes that all 53 licensed beds are staffed.

Table 5 – Encompass Western Massachusetts' Utilization¹⁶

Utilization Statistic	CY17	CY18	CY19	CY20	CY21	CY22
Patient Days	17,274	17,287	17,788	17,574	18,161	18,327
Discharges	1,277	1,314	1,364	1,303	1,393	1,440
Avg. Length of Stay	13.5	13.2	13.0	13.5	13.0	12.7
Licensed Beds	53	53	53	53	53	53
Average Daily Census	47.3	47.4	48.7	48.0	49.8	50.2

¹³ Including self-pay and Workers Compensation for patient confidentiality.

¹⁴ Includes "Commercial" for patient confidentiality.

¹⁵ Includes the following counties of origin for patient confidentiality: Berkshire, Barnstable, Middlesex, Norfolk, Suffolk, Bristol, Essex.

¹⁶ Source: Medicare Cost Report data summarized and obtained through ahd.com.

Occupancy	89.3%	89.4%	92.0%	90.6%	93.9%	94.7%
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As shown above, the Hospital is operating at virtual capacity, with 50.2 patients daily on average in its 53-bed facility, resulting in an average annual occupancy of 94.7% in CY2022. The Hospital's CY2022 patient day volume increased 6.1% over the Hospital's CY2017 volume. Notably, both patient days and discharges have increased every year between 2017 and 2022, with the exception of a slight decrease in 2020 due to the impact of COVID-19. Even during that year, the Hospital was highly utilized, with an average annual occupancy of 90.6% in 2020. When the Hospital experiences high occupancy, patient admissions experiences the most notable impact, with acute hospital patients experiencing delays in being discharged from a medical/surgical stay. In order to maintain the ability to admit patients with the lowest amount of wait time between referral and admission, the Hospital must maintain occupancy levels below 90%. Research shows that relatively efficient IRFs, those with "lower (better) rates of hospitalization and higher (better) rates of successful discharge to the community", maintain an average occupancy of 72.8%.^a An occupancy rate lower than the current rate will ensure a bed is available, and is able to be turned over between patients, without negatively impacting the timing of the patient's discharge from the acute hospital. This in turn improves the acute hospital's ability to admit patients from their emergency department. Occupancy levels below 90% ensure the hospital is able to maintain an ideal patient flow to best serve its patients.

The Hospital expects the need for its specialized services to continue to increase consistent with historical trends, which demonstrates a need for added capacity. The Applicant notes that the 17 private rooms will fit into the existing shell space of the facility and they will be supported by the existing ancillary and support services. The Applicant states that proposed beds will be all be immediately staffed and available for use upon completion of the Proposed Project. Staff will primarily be direct patient caregivers such as Registered Nurses, Physical Therapy, Occupational Therapy, and Speech Therapy staff. The addition of beds is expected to lower the occupancy from its current rate of 94.7%, to a more manageable rate in the 80% range. This will provide a safety margin to deal with fluctuations in the arrival of patients and eliminates or minimizes the cost of delaying admission. Table 6 demonstrates the projected utilization upon completion of the Proposed Project.

Table 6 – Encompass Western Massachusetts' Projected Utilization¹⁷

Utilization Statistic	CY2025 (Year 1)	CY2026 (Year 2)	CY2027 (Year 3)	CY2028 (Year 4)¹⁸	CY2029 (Year 5)
Patient Days	20,047	20,416	20,772	21,141	21,141
Discharges	1,575	1,604	1,632	1,661	1,661

¹⁷ The CPA Reports states, "The ramp up of patient days and cases was done starting with the historical patient case information and adding a one-time increase of 5.8% for 2025, the year the 17 additional beds come online. From 2026 to 2029, a general increase of 1.7% per year was added."

¹⁸ Project Year 4 (CY28) occupancy rate is based on 366 days because 2028 is a leap year.

Avg. Length of Stay	12.7	12.7	12.7	12.7	12.7
Licensed Beds	70	70	70	70	70
Average Daily Census	54.9	55.9	56.9	57.8	57.9
Occupancy	78.5%	79.9%	81.3%	82.5%	82.7%

Without the Proposed Project, patients in need of intensive inpatient rehabilitative and restorative care would either be delayed in receiving that care, be forced to receive a lower level of care (such as at a skilled nursing facility or home health services), need to seek care further from home, or forego needed rehabilitation services altogether. The Applicant notes that none of those options are optimal for patient care and outcomes.

2) Projected Increases in 65+ Population

The largest proportion of the population that requires inpatient rehabilitation services are individuals ages 65 and over, as previously demonstrated in Patient Panel data. As shown below, Hampden and Hampshire counties (the main counties served by Encompass Western Mass) are projected to experience a 16.7% increase in the senior population between 2025 and 2035. Consequently, the senior population is projected to comprise a larger portion of the total population in 2035 (23.6%) than in 2025 (20.6%). The addition of 17 beds at Encompass Western Mass will ensure that the comprehensive inpatient rehabilitation needs of the large and increasing senior population can continue to be met close to home.

Table 7 –Age 65+ Population Projections By County^b

County	2025	2030	2035	% Change, 2025-35
Hampden	95,637	105,674	111,180	16.3%
Hampshire	36,174	40,774	42,697	18.0%
Total	131,811	146,448	153,877	16.7%
65+ as a Percent of Total Population	20.6%	22.6%	23.6%	N/A

3) Importance of Proximity of Care for Family Participation

The ability for an IRF patient to receive care close to home is important because direct and active involvement by family and caregivers is a critical component of the patient's nearly two-week intensive inpatient recovery and rehabilitation process. The goal of a patient's family and caregiver participation is to ensure a safe discharge home for the patient by providing the patient and his/her family with the knowledge and skills to adjust their lifestyle to meet the patient's functional and cognitive capabilities when the patient returns home from the IRF.

Without a sufficient number of beds at Encompass Western Mass, patients must travel outside of their local community to receive care for the wide array of complex medical conditions

treated at the Hospital. This would create hardship on patients' families and caregivers, including the senior population which comprises the vast majority of IRF patients. The table below shows the distances from Encompass Western Mass to other Encompass Hospitals providing equivalent services.

Table 8: Distances from Encompass Western Mass to Other Encompass MA Facilities¹⁹

Encompass Rehab Hospital	Main Campus	Driving Distance	Time
Fairlawn Rehabilitation Hospital	Worcester	44.7 miles	53 minutes
Encompass Health Rehab Hospital of New England	Woburn	85.0 miles	1 hour, 28 min
Encompass Health Rehab Hospital of Braintree	Braintree	91.4 miles	1 hour, 29 min

The Applicant explains that while there may be geographically closer options for patients in need of IRF services, the nearest IRF options are units of acute care hospitals and therefore serve a more limited number of patients annually, predominantly caring for stroke and orthopedic patients. As detailed in Table 9, Encompass Western Mass regularly provides a wider array of services than the local IRF units in acute care hospitals.

Table 9: Comparison of Number of Conditions Treated at Western Mass IRF Units In The Last Year^c

Conditions Treated	Weldon Center for Rehab	Noble Hospital	Encompass Western Mass
Stroke	84	53	184
Hip or knee replacement, amputation or other bone or joint condition	38	27	279
Hip or femur fracture	22	31	118
Brain injury (traumatic)	17	13	49
Nervous system disorder (excluding stroke)	14	11	143
Spinal cord disease or condition (non-traumatic)	14	<11	22
Brain disease or conditions (non-traumatic)	<11	<11	70
Spinal cord injury (traumatic)	<11	<11	<11
All Other Conditions	37	55	318
Total	246	220	1,193

The ability of family members to actively and consistently participate in a patient's rehabilitation services and recovery process is critically important to the patient's return to his/her highest level of functioning and independence. As the aging population in Western

¹⁹ Source: Google Maps. Note: times and distances reflect the shortest travel time for mid-morning travel Monday, November 13, 2023.

Massachusetts continues to grow, the proposed 17-bed addition will ensure that patients in need of IRF services can continue to receive that intensive level of care close to home.

Analysis

Staff finds that the Applicant has demonstrated sufficient need for additional private IRF inpatient beds at Encompass Western Mass to address the consistently high occupancy rate and projected growth in demand for services. The Proposed Project will the Applicant to meet the current and future demand of aging population and their families in the appropriate setting close to home. Further, Staff inquired how the Applicant will ensure adequate staffing to ensure the success of the Proposed Project to meet the needs of its Patient Panel. The Hospital confirmed its commitment to investing in the healthcare workforce through recruitment efforts, and by coordinating with a number of local educational institutions and national associations²⁰ to target skilled rehab talent for employment opportunities. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1a.

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

In this section, staff will assess if the Proposed Project adds measurable public health value in terms of improved health outcomes and quality of life for the Applicant's existing Patient Panel, while providing reasonable assurances of health equity.

Health outcomes and quality of life

The Proposed Project addresses the Patient Panel's need for additional intensive physical rehabilitation beds through renovation and build-out of existing vacant space at an IRF in Western Massachusetts. The Applicant highlights the improved outcomes associated with 1) access to IRF level of care and 2) private rooms.

1) Access to IRF Level of Care

As detailed in Table 9 above, Western Massachusetts has a limited number of IRF units available to its residents. When inpatient rehabilitation services are necessary, they are typically provided in either an IRF or in a skilled nursing facility ("SNF"). There are a number of differences in the scope of services that must be provided in each setting, with inpatient rehab in a SNF being considered less intensive post-acute care services.^d The Applicant notes that IRFs must provide a higher number of therapy hours per day than a patient receives in a SNF. The Applicant also highlights that IRF's require the involvement and direction of a physician leading the multidisciplinary team. These factors culminate in the national average discharge rates showing that rehab hospitals return a significantly higher percentage of patients to the community compared to nursing homes.^e To illustrate the

²⁰ See Responses to DoN questions p. 2-3 at <https://www.mass.gov/doc/responses-to-don-questions-pdf-encompass-health-corporation/download>

importance of adding capacity for IRF services for the Patient Panel, the Applicant noted research studies which conclude that post-acute care in IRF settings leads to lower patient mortality, fewer readmissions, and fewer ER visits.^{f,g} The studies also noted improved functional outcomes of injured patients^h, as well as substantially improved physical mobility and self-care function for stroke patients compared with rehabilitation in SNFs.ⁱ The consistent findings in the referenced research are that patients receiving post-acute care in a comprehensive and intensive IRF setting while recovering from an acute injury or stroke display higher levels of functionality and reduced disabilities than patients receiving services in other post-acute care environments, including SNFs.

2) Private Rooms

In addition to adding capacity for inpatient rehabilitation services in the IRF setting, the Proposed Project will provide the Patient Panel with additional private rooms for care. The Applicant cites several studies highlighting the benefits and improved health outcomes associated with private rooms for post-acute care. The studies conclude that private rooms can result in a reduction in the spread of infection and substantial savings compared to open-bay rooms by avoiding costs associated with nosocomial infections.^{j,k} Research also suggests that private rooms can enhance the quality of life for patients in terms of safety, dignity, privacy and ensuring patient-centered care.^l Private patient rooms appear to enhance the patient healing environment through noise reduction, fewer sleep disturbances, and a significant reduction in overall stress during their stay, which result in improved patient satisfaction.^m

To assess the impact of the Proposed Project, the Applicant proposed quality metrics and a reporting schematic, as well as metric projections for quality indicators that will measure quality of care. The measures are presented in Appendix I and will be reported to DPH on an annual basis following implementation of the Proposed Project.

Analysis: Public Health Value: Health Outcomes and Quality of Life

Staff finds that adding capacity for IRF service has the potential to improve health outcomes for the Patient Panel and the greater community. The literature suggests that IRF's provide more rehab services than the SNF setting, and IRF patients generally experience better treatment outcomes. The ability to provide these services in private patient rooms further enhances patient outcomes through improved infection control and an environment conducive to healing. As a result, Staff finds that the Applicant meets the requirements of the Public Health Value: Health Outcomes and Quality of Life part of Factor 1b.

Health Equity and Social Determinants of Health (SDOH)

The Applicant asserts that the Proposed Project will work to reduce health inequity through increasing access to IRF services to all members of Encompass Western Mass's community. The Applicant states that the Hospital does not discriminate on the basis of race, color, national

origin, sex, age, or disability in the delivery of healthcare to its patients. The Applicant highlighted that Encompass Health implemented its Inclusion and Diversity Program back in 2008 to address both community and workplace needs. Encompass operates in diverse communities across the nation and stated its commitment to ensuring that inclusion and diversity are incorporated into day-to-day business practices at all levels within the organization and its affiliated hospital facilities, including at the Hospital. Encompass has ongoing efforts in the following areas to facilitate equitable access to its services:

1) Provision of Quality Care that is Responsive to the Diversity of the Community

- Cultivating relationships with community organizations that can assist in improving the workforce and health needs of the diverse communities served.
- Developing a diversity calendar to promote monthly multicultural observances.

2) Governance, Leadership and Workforce

- Recognizing the importance of diversity and seeking to employ individuals of all backgrounds.
- Attracting, developing, and retaining a uniquely talented workforce which fosters an open and inclusive work environment and is knowledgeable and responsive to the diverse communities of the patients served.
- Launching 'Aware for Care' campaign, including resources to develop and enhance culturally competent knowledge and skills among hospital staff.
- Creation of the quarterly Inclusion & Diversity Digest newsletter.
- Mandatory diversity awareness training for all employees annually and at time of hire.

3) Communication and Language Assistance

- Providing free language services to community members whose primary language is not English, through qualified interpreters from two contracted providers.
- Providing patient care information written in English and Spanish.
- Implementation of technology to enhance communication.
- "Stratus" video language translation assistance system, which provides assistance in 18 languages.
- Providing American Sign Language ("ASL") interpretation services available 24 hours a day, 7 days a week. ASL services may be in-person or remote depending on the service provider, patient preference, and availability.
- The Hospital places magnets on the doors of deaf and hard-of-hearing patients to serve as a visual reminder to Hospital staff that the patient may need accommodation for communication.
- Hospital staff members use clear face masks/shields to enable a deaf and hard of hearing patients to better observe facial expressions.

4) Engagement, Continuous Improvement and Accountability

- Partnering with diverse organizations with shared common goals.
- Culturally competent patient care assessment includes as part of the Employee Engagement Survey.

- Publication of Diversity Annual Report.

Analysis: Health Equity and SDoH

The Applicant demonstrates a commitment to achieve health equity by incorporating equity into its business practices at all organizational levels. Staff finds that the Applicant has sufficiently outlined long standing and ongoing efforts toward health equity. As a result, Staff finds that the Applicant meets the requirements of the Public Health Value: Health Equity part of Factor 1b.

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

The Applicant asserts the Hospital ensures continuity of care, improved health outcomes, and enhanced quality of life through its 1) Care Management Program, 2) Open Medical Staff Model, and 3) Technology. The Applicant states that Proposed Project will add the additional capacity to bring this system of care to more patients in Western Mass.

1) Care Management Program

Encompass has a Care Management Program that focuses on promoting effective communication and coordination across care settings to ensure a smooth transition from hospital to community and seamless integration of services. All patients have a case manager to provide care coordination and social services while the patient is in the hospital as well as coordination of services for the patient post-discharge. At the time of discharge, the case managers confirm that all necessary medical follow-up appointments, established any post-discharge care services, and sends necessary medical information regarding the patient's rehabilitation stay to the patient's community physician.

2) Open Medical Staff Model

The Hospital's Open Medical Staff Model ensures that community-based physicians are able to care for patients' medical needs alongside rehab staff. The Hospital works with community-based internal medicine physicians, and other specialties to ensure that inpatients have access to medical specialists as needed during their inpatient stay. Employing this model as well as direct communication with community-based physicians means that patients return to their primary and specialty care physicians upon discharge with no interruption or gap in care, thus improving the coordination of patient care.

3) Technology

The Applicant also utilizes technology to facilitate communications with community-based providers. Care collaboration is enabled through a secure, web-based portal called Encompass Health Connection. This portal allows physicians and clinical care teams to review patient diagnoses, orders, medications, and overall patient progress.

Analysis

Staff finds that the Applicant's Care Coordination Program and Open Medical Staff Model will contribute positively to efficiency, continuity, and coordination of care. These methods reduce the likelihood of a gap in service with the patient's community-based providers. Encompass's secure, web-based portal also supports communication between the physician, specialists, and all care team members, which can foster better collaboration and continuity of care. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1c.

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. As a result, Staff finds that the Proposed Project meets the requirements of Factor 1d.

Factor 1: e) Evidence of Sound Community Engagement

The Department's Guideline²¹ 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. Regulations state that efforts in such consultation should consist of engaging "community coalitions statistically representative of the Patient Panel."²²

The Applicant presented the Proposed Project presented to the following groups:

- Hospital's Patient and Family Advisory Committee ("PFAC")
- Western Mass Community

During each of the presentations described below, attendees were educated on the Applicant's Proposed Project and the Determination of Need process. Following the presentation, attendees were able to share feedback and ask the presenters questions.

- 1) **Hospital's Patient and Family Advisory Committee (PFAC):** The Proposed Project was presented to the PFAC in May 2023. The presentation was attended by five (5) PFAC staff and three (3) non-staff attendees. PFAC members did not have any feedback or questions for the presenters.
- 2) **Presentation to the Community in September 2023.** The applicant hosted a virtual community engagement meeting on September 7, 2023. The meeting was advertised on the hospital's website for 1 week. No community members attended, resulting in no feedback or discussion from the community.

Analysis

²¹ Community Engagement Standards for Community Health Planning Guideline

²² DoN Regulation 100.210 (A)(1)(e). [Available at https://www.mass.gov/files/documents/2018/12/31/jud-lib-105cmr100.pdf](https://www.mass.gov/files/documents/2018/12/31/jud-lib-105cmr100.pdf)

Staff finds that the Applicant sought to engage the community to elicit feedback from patients and families regarding the Proposed Project and thereby 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 Proposed Project will not have an adverse effect on competition in the Massachusetts healthcare market based on price, TME, provider costs, or other recognized measures of healthcare spending based on the following:

1. The Hospital is a cost-effective provider of inpatient rehabilitative care. This is demonstrated by lower Medicare payments to Encompass Health, on average, for patients with a comparable acuity at other IRF providers (detailed in Factor 2). The Applicant notes that upon completion of the Proposed Project, the Hospital's prices will not increase as a result.
2. The Hospital, as part of Encompass, is currently able to maintain a competitive cost structure through established "best practice" clinical protocols, supply chain efficiencies, sophisticated management information systems and overall economies of scale.
3. The Proposed Project will ensure that more patients seeking access to needed IRF services can receive admission to the facility in a timely manner with the increase in private rooms. More admissions will result in an overall reduction in health care costs because patients awaiting discharge from higher cost, general acute care hospitals can be discharged sooner.

Analysis

Staff finds that the Proposed Project will improve patient access to inpatient rehabilitative care in a cost-effective setting. The Applicant can improve patient outcomes by using best practice models of care in private rooms shown promote more expedient healing, which can result in an overall reduction in healthcare costs. Staff finds that the Proposed Project will likely compete on the basis of price, TME provider costs, and other measures of health care spending.

Summary, FACTOR 1

As a result of the information provided by the Applicant and additional analysis, staff finds that the Applicant has demonstrated that the Proposed Project meets Factor 1.

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

Cost Containment

The Applicant states that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment through several means. First, the expansion of beds, and private rooms will allow the Hospital to be accessible to more patients awaiting discharge from higher cost, general acute care hospitals, consequently resulting in an overall reduction in health care costs.

Second, Encompass Health's rehabilitation philosophy focuses on including the family and patient in goal setting and education. This approach ensures the best possible outcome and discharge to the community with a lowered risk of readmission to the acute care hospital. As a result of the intensive focus on patient and caregiver training, Encompass patients experience lower readmissions, thereby contributing to cost containment.

Third, Encompass has a lower cost of care compared to other IRFs which contributes to the Commonwealth's goal for cost containment. The Applicant noted that Encompass Health's average estimated total cost per discharge across all of its facilities in FY21 was \$14,417 compared to the higher total cost per discharge for non-Encompass freestanding hospitals of \$18,610 and for hospital-based units of \$22,450 during that same time period. Encompass Health's average estimated total payment per discharge across all of its facilities in FY21 was \$20,944 compared to the higher total payment per discharge for non-Encompass freestanding hospitals of \$22,569 and for hospital-based units of \$23,801 during that same time period. This demonstrates that Medicare pays Encompass Health less per discharge, on average, and Encompass Health treats a comparable acuity patient.

Analysis: Cost Containment

As described above, the Proposed Project seeks to provide greater access to IRF services without any increases in cost to the Patient Panel. The project has cost containment potential through reductions in costs associated with longer lengths of stay in higher cost settings. The most recent Medicare Payment Advisory Commission²³ *Report to the Congress: Medicare Payment Policy, March 2023*, supports the cost containment assertion as it was noted that, "Relatively efficient IRFs were, on average, larger and had higher occupancy rates compared with other IRFs, leading to greater economies of scale."ⁿ Therefore, DoN Staff can conclude that the Proposed Project will likely meet the cost containment elements of Factor 2.

Improved Public Health Outcomes

²³ The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105-33) to advise the U.S. Congress on issues affecting the Medicare program.

As discussed in the Patient Panel Need section, the Applicant anticipates demand for IRF services will continue to increase as the population grows and ages. Expansion through the Proposed Project will benefit more patients by enabling Western Massachusetts residents to maintain a higher quality of life and greater independence following injury or illness. While all residents in need of inpatient rehabilitation services will have access, patients aged 65 years and older generally experience more health-related issues where rehabilitative interventions can improve outcomes, as compared to younger populations. When patients experience these conditions, they can lose independence, become socially isolated and unable to accomplish important tasks such as grocery shopping or scheduling medical appointments. Improved access to inpatient rehabilitation care will enable residents to return to independence with greater functionality, thereby leading to improved health outcomes for the Western Massachusetts community.

Analysis: Public Health Outcomes

Staff finds that, through the provision of IRF services, patients have the opportunity to reach their full potential for independence while drawing upon community resources when needed. Increasing capacity for IRF services will allow more patients to benefit from services, and will address the anticipated increase in demand as the population ages. Additional IRF beds will avoid delays in treatment that can adversely impact health outcomes. Therefore, DoN Staff can conclude that the Proposed Project will likely meet the Public Health Outcomes component of Factor 2.

Delivery System Transformation

Encompass Western Mass patients have access to clinical social workers during their stay and as part of discharge planning. They assess patient needs and work with patients and their families to implement appropriate services.

Services provided by case management/social service workers include coordinating with the physician to ensure the patient's needs are met and involving the family and caregivers in the patient's rehabilitation. Examples of Case Manager interventions include:

- Working with the family prior to the patient's discharge to provide training to help family members care for patients after discharge.
- Visiting the patient's home prior to discharge to identify and then address any special needs (such as equipment) the patient will have upon returning home.
- Coordination and collaboration of services between the patient and community service providers who will be responsible for providing care to the patient post-discharge.

- Conducting an assessment of social determinants of health (SDoH) into the patients' care planning and connecting patients to community resources and services that they need upon discharge such as access to transportation, food, mental health services.

Analysis: Delivery System Transformation

Staff notes that the Hospital has a focus on coordinating a patient's plan of care among the clinical care team, and family members. The Hospital communicates with and trains family members, and connects the patient with community supports. These efforts show a commitment to improving the delivery system for patients needing intensive rehabilitative care and by expanding its beds through the Proposed Project, more patients can be reached. Central to the goal of Delivery System Transformation is the integration of social services and community-based expertise. SDoH screening is integrated into the Applicant's care processes so that linkages can be made to community resources upon discharge to address health risks and improve health outcomes. Therefore, DoN Staff can conclude that the Proposed Project will likely meet the Delivery System Transformation component of Factor 2.

Summary, FACTOR 2

As a result of information provided, staff finds that the Proposed Project has sufficiently met the requirements of 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 this Factor will not be addressed further in this report. As a result of information provided by the Applicant, staff finds the Applicant has reasonably met the standards of Factor 3.

Factor 4: Financial Feasibility

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 Applicant submitted a CPA report compiled by Bernard L. Donohue, III, CPA. The scope of the analysis included review of the five-year financial projections, balance sheet, statement of cash flow analysis, and income statements for Encompass Western Mass, audited Financial Statements of Encompass Health Corporation (2021 and 2022), the Encompass website, annual

reports, and the DoN application. The CPA assessed the reasonableness²⁴ of assumptions used in the preparation and feasibility²⁵ of the projections with regards to the Proposed Project.

Revenues

The only revenue category on which the Proposed Project would have an impact is Net Patient Service Revenue (“NPSR”). The addition of 17 beds would increase both patient days and cases. Using historical patient case information, there was a calculation of a one-time increase of 5.8% for 2025 (the year the 17 additional beds come online). From 2026 to 2029, a general increase of 1.7% per year was added. The average daily census is projected to grow from 54.9 in 2025 to 57.9 in 2029. The payment rate was then calculated by dividing the NPSR by the number of cases, to obtain an average payment rate per case which was then inflated by 1% each of the succeeding years. The CPA’s opinion is that revenue growth projected by Management reflects a reasonable estimation based primarily on historical operations.

Operating Expenses

The CPA analyzed Salaries and Benefits, Operating Expenses, Depreciation Expense, Supplies and Other Operating Expenses for reasonableness and feasibility as related to the Proposed Project.

Salaries were calculated as a function of the historical Full Time Equivalents (“FTE’s”) per occupied bed at Encompass Western Mass and Benefits were calculated as a percentage of salaries using historical data. Thus, as the patient population increases, the number of FTE’s required will also be increased. Salaries costs were increased each year by a rate of 2.5% and Benefits were increased each year as a percentage of salaries.

Supplies and Other Operating Expenses were calculated as an historical cost per patient day at Encompass Western Mass, and then inflated by 2 to 3% per year during the projection years. Management fees and the facility lease were part of the Other Operating Expenses projections. Management fees are calculated at 5% of NPSR and remain as such through the projection years. The facility is leased from Encompass Health Mass Real Estate, LLC and the lease expense is inflated by 2% per year during the projection years. The remaining Other Operating Expenses were calculated as an historical cost per patient day inflated by 2% per year during the projection period.

Depreciation Expense reflects the incremental expense related to the Proposed Project. The projections reflect building and building improvements depreciated over an average life of

²⁴ Reasonableness is defined within the context of this report as supportable and proper, given the underlying information.

²⁵ Feasibility is defined as based on the assumptions used, the plan is not likely to result in insufficient funds available for capital and ongoing operating costs necessary to support the proposed project without negative impacts or consequences to the existing Patient Panel.

30 years, equipment depreciated over an average life of 8 years, and intangibles amortized over an average life of either 5 or 10 years.

The CPA concludes that the projected growth in operating expenses reflects a reasonable estimation based primarily upon historical operations.

Capital Expenditures and Cash Flows

The CPA reviewed the total capital expenditures for the project which will be financed by the annual cash flows of Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC. The CPA concludes that the pro-forma capital expenditures and resulting impact on the cash flows of Encompass Western Mass are reasonable.

As a result of its analysis, the CPA concluded the following:

Based on my review of the Projections and relevant supporting documentation, I determined the project and continued operating surplus are reasonable and based upon feasible financial assumptions. Therefore, the proposed 17-bed addition project at Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC is financially feasible and within the financial capability of Encompass Health Corporation.

Factor 4 Analysis

Staff is satisfied with the CPA's analysis of the Proposed Project's projections. 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 4.

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

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 must provide 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).

The Applicant considered and rejected two alternatives to the Proposed Project:

Alternative Option 1: Maintain the status quo and continue to serve patients with the existing complement of beds. This option carries no increase in operating costs or capital expenditure. However, Encompass Western Mass would have no additional beds to care for the large and increasing population ages 65 and over in Western Massachusetts, which comprises the vast majority of inpatient rehabilitation patients. This option would not allow Encompass Western Mass the opportunity to improve efficiencies by maximizing its existing space and

infrastructure. The consequence of maintaining the status quo would be caring for fewer patients than the existing facility has the potential to serve.

Alternative Option 2: Establish a satellite facility in Western Massachusetts. This alternative was rejected because it would have been a more costly alternative that required either new construction or a long-term lease of space rather than minor renovation and use of existing vacant space in the Hospital. Moreover, the construction or lease of additional space to house the 17-bed expansion would result in the Hospital operating less efficiently across two separate sites.

Analysis

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

The Applicant, Encompass Health Corporation, is a non-acute care rehabilitation hospital applying for a substantial capital expenditure project. As a hospital without a community health planning infrastructure, the Applicant will contribute 5% of the total project costs to the Statewide Community Health and Healthy Aging Funds.

Overall 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 to the DoN

1. The total required CHI contribution of \$293,137.95 will be directed to the Massachusetts Statewide Community Health Funds.
2. To comply with the Holder's obligation to contribute to the Massachusetts Statewide Community Health Funds, the Holder must submit the payment, a check for \$293,137.95, 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 payment has been made.

Payment should be sent to:

Health Resources in Action, Inc., (HRiA)
2 Boylston Street, 4th Floor
Boston, MA 02116
Attn: Ms. Bora Toro

Appendix I

Outcome Measures

Below is a list of outcome measures to assess the impact of the Proposed Project. The Applicant will report this information to the Department's DoN Program staff as part of its annual report required by 105 CMR 100.310(A)(12) following implementation of the Proposed Project. For all measures, the Applicant will provide to the program a baseline upon implementation of each project component, along with updated projections, which the program will use for comparison with the annual data submitted. Reporting will include a description of numerators and denominators.

1. Utilization (as expressed in Table 5), which shall include:
 - a. Patient Days
 - b. Discharges
 - c. Average Length of Stay
 - d. Licensed Beds
 - e. Average Daily Census
 - f. Occupancy
2. Results of Care
 - a. Change in patient's ability to care for themselves.
 - b. Change in patient's ability to move around.
3. Effective Care
 - a. Percentage of patients who are at or above an expected ability to care for themselves at discharge.
 - b. Percentage of patients who are at or above an expected ability to move around at discharge.
4. Readmissions
 - a. Rate of potentially preventable hospital readmissions 30 days after discharge from an IRF.
 - b. Rate of potentially preventable hospital readmission during the IRF.
5. Successful Return to Home or Community
 - a. Rate of successful return to home or community from an IRF.

REFERENCES

- ^a Medicare Payment Advisory Commission (“MedPAC”) Report to the Congress: Medicare Payment Policy, March 2023. <https://www.medpac.gov/document/march-2023-report-to-the-congress-medicare-payment-policy/>
- ^b UMass Donahue Institute MassDOT Vintage 2018 Population Projections. September 2018. (UMDI-DOT V2018)
- ^c CMS Compare; <https://www.medicare.gov/care-compare/compare?providerType=InpatientRehabilitation&providerIds=223030,22T066,22T065&city=Ludlow&state=MA&zipcode=> Notes: Data last updated: September 27, 2023.
- ^d CMS regulations, MedPAC March 2019 Report to Congress.
- ^e CMS Medicare Compare Website; data last updated for IRFs March 30, 2023, and for SNFs April 26, 2023. Data for both types of facilities for same time period: 7/1/19-12/31/19 and 7/1/20-6/30/21.
- ^f Joan E. DaVanzo, Ph.D., M.S.W., Al Dobson, Ph.D., Audrey El-Gamil, Justin W. Li, and Nikolay Manolov, Ph.D.; Assessment of Patient Outcomes of Rehabilitative Care Provided in Inpatient Rehabilitation Facilities and After Discharge; 2014.
- ^g Stroke. 2016;47:e98-e169. DOI: 10.1161/STR.0000000000000098.
- ^h “Acute Rehabilitation after Trauma: Does it Really Matter?” J Am Coll Surg 2016;223:755e763. © 2016 by the American College of Surgeons. Published by Elsevier Inc. All rights reserved.)
- ⁱ JAMA Network Open. 2019;2(12):e1916646. doi:10.1001/jamanetworkopen.2019.16646.)
- ^j Hessam Sadatsafavi, PhD, Bahar Niknejad, MD, Rana Zadeh, PhD, Mohsen Sadatsafavi, MD, PhD. *Do Cost Savings From Reductions in Nosocomial Infections Justify Additional Costs of Single-Bed Rooms in Intensive Care Units? A Simulation Case Study*; Journal of Critical Care, 2015. <http://dx.doi.org/10.1016/j.jcrc.2015.10.010>
- ^k Roger Ulrich of Texas A&M University and Craig Zimring of the Georgia Institute of Technology and reported to The Center for Health Design; *The Role of the Physical Environment in the Hospital of the 21st Century: A Once-in-a-Lifetime Opportunity*; September 2004.
- ^l Michael E. Detsky, MD, Edward Etchells, MD, MSc, *Single-Patient Rooms for Safe Patient-Centered Hospitals*, JAMA, August 27, 2008.
- ^m Habib Chaudhury, PhD, Atiya Mahmood, PhD, Maria Valente of Simon Fraser University, Vancouver, BC, Canada *The Use of Single Patient Rooms versus Multiple Occupancy Rooms in Acute Care Environments*; 2004.
- ⁿ Medicare Payment Advisory Commission (“MedPAC”) Report to the Congress: Medicare Payment Policy, March 2023. <https://www.medpac.gov/document/march-2023-report-to-the-congress-medicare-payment-policy/>