

APPLICANT RESPONSES

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

While you may submit each answer as available, please

- List question number and question for each answer you provide
- Submit responses as a separate word document, using the above application title and number as a running header and page numbers in the footer
- We accept answers on a rolling basis however, when providing the final answers, submit all questions and answers in order in one final document.
- Submit responses in an accessible format in WORD or EXCEL. **Include a table in data format (NOT pdf or picture) with the response. For HIPAA compliance Do not include numbers <11.**

In order for us to review this project in a timely manner, please provide the responses by March 4, 2024.

1. Please explain the status of the approved project, including which elements if any of the approved project been completed and opened for patient care?
 - a. **relocated and expanded medical oncology department; (2) a relocated radiation oncology department; (3) a relocated inpatient cardiac unit consisting of 32 beds; and (4) shell space for future projects. The Hospital seeks to build out approximately 24,783 gross square feet of previously approved shell space which is the total amount of approved shell space.**

Construction for the new tower began in 2023 and is on schedule for the first patients to be seen in the Medical Oncology and Radiation Oncology Departments in April 2025. The 3rd floor medical surgical unit is on schedule to open for patient care in March 2026.

2. **What is planned for the space vacated by the cardiac unit and the medical oncology department?**

The Approved Project's services are being relocated from buildings built between 1950 and 1996 and would require significant renovations for any new use. Given the spaces will continue to be used in their current state for the next one to two years, the Hospital has not yet evaluated how it may use the space in the future.

3. **The Applicant asserts the industry standard for inpatient utilization is widely accepted to be 85% occupancy, please provide a citation for this assertion.**

Ravaghi et al., *Models and methods for determining the optimal number of beds in hospitals and regions: a systematic scoping review*, 20 BMC HEALTH SERVICES RESEARCH 186 (2020), available at <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-5023-z>.

4. **Please confirm the following about the licensed beds Cape Cod Hospital- 197 licensed beds and Falmouth Hospital licensed 81 beds. Please confirm that all of the licensed beds are staffed and operational.**

Cape Cod Hospital has 197 licensed medical/surgical beds and Falmouth Hospital has 71 licensed medical/surgical beds. All beds are currently operational and staffed, as has been the case for the last several years.

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5. You state seasonal population fluctuations create spikes in demand and place a strain on the hospital, and during the summer, the population of Cape Cod doubles in size, however, winter spikes present similar surges. In 2023, the Hospital had more admitted patients than licensed beds for almost one-third of the year (31%). In the summer of 2023, the Hospital's occupancy rate was 101%. Are these occupancy rates calculated off of your licensed beds or do they include the 28 bed alternate/surge space?

Occupancy rates are based on licensed medical/surgical beds only.

- a. To what do you attribute the high inpatient occupancy rates? Is it related to the surge in respiratory viruses or other illnesses? Explain.

The Hospital's high occupancy rates are not tied to surges and are the result of increased need in the community for the treatment of higher acuity conditions.

- b. Since the 28-bed Alternate Inpatient Care Space has been in effect, how many of those beds have been utilized on a monthly basis?

See attached Excel file.

- c. Does Falmouth Hospital also have an Alternative Inpatient Care Space agreement, if so, for how many beds?

Yes, 12 beds.

- d. In order for us to understand the seasonal fluctuations, for both CCH and FH, please provide us with the last three fiscal years of utilization data by month. Fill in the table below by month and by facility.

See attached Excel file.

Table X: Historic Utilization- Cape Cod Hospital Month XX	FY 21	FY22	FY 23	YTD 24
Staffed licensed Beds				
Alternate Care Beds staffed				
Discharges				
Patient Days				
Average Length of Stay				
Average Daily Census				
Occupancy				

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Table X: Historic Utilization-Falmouth Month XX	FY 21	FY22	FY 23	YTD 24
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Discharges				
Patient Days				
Average Length of Stay				
Average Daily Census				
Occupancy				

6. You state-in order to be able to move patients out of the ED, the Hospital requires additional inpatient beds; the presence of ED boarders negatively impacts all ED patients as a result of increased ED lengths of stays for all patients. Because boarding patients must wait in an ED treatment room until an inpatient bed becomes available, newly arriving patients' diagnosis and treatment is delayed until a treatment room becomes available.

a. What percentage of admissions are through the ED?

88% of medical/surgical admissions are through the ED.

b. Does the applicant differentiate acuity levels within the ED? What percentage of patients are high acuity? What percentage of ED patients could be seen in a less intensive setting?

Yes, CCHC uses the Emergency Severity Index ("ESI") to differentiate acuity levels. Historically 21% of emergency patients at Cape Cod Hospital are high acuity (ESI 1 and 2) and approximately 1% of Cape Cod Hospital ED patients are low acuity (ESI 5). This means the majority of residents are appropriately utilizing urgent care resources and not the ED. Cape Cod Healthcare operates six urgent care centers in Barnstable County.

The table below provides the ESI breakdown at Cape Cod Hospital for the two most recent fiscal years.

Acuity Distribution at CCH	FY22 #	FY23 #	FY22 %	FY23 %
High (ESI 1 and 2)	16,238	17,159	21%	21%
Moderate (ESI 3 and 3)	59,534	62,489	77%	77%
Low (ESI 5)	862	769	1%	1%
TOTAL¹	76,634	80,417	100%	100%

¹ Total volume includes patients who register in the ED but leave before being seen by a provider. This population is about 2% of ED volume annually.

- c. **You state- In FY2023, after the decision to admit had been made, the Hospital's medical/surgical patients spent a total of 46,336 hours in the ED waiting for an inpatient bed. 1,818 medical/surgical patients boarded in the ED for more than 12 hours waiting for an inpatient bed to become available. To better understand, please explain these comments further.**

(1) How many patients does the 46,336 hours equate to.

- 1,818 patients
 - a. 1085 (60%) of the boarders were waiting for an inpatient bed for an average of 18.6 hours per patient.
 - b. 733 (40%) boarded for an average of 38.8 hours per patient for skilled nursing facility or short term rehab placement or for services to be put in place to allow them to return home safely.

(2) How many hours did the boarded (1818) patients remain in the ED. (By staff's calculations, 1818 M/S patients waiting over 12 hours is at least 21,816 hours.)

1,818 boarded patients remained in the ED for a total of 46,336 hours. CCH tracks boarding times for patients who wait in the ED longer than 12 hours which is consistent with mandatory reporting of ED boarding data reported to the Department on a regular basis. Accordingly, the Hospital's total boarding hours is significantly higher if patients who waited at least two hours from the decision to admit was made were included.

(3) What is the average wait time from decision to admit to being assigned to a bed?

Average wait time from decision to admit to being assigned to a bed for ED medical boarders was 371 minutes in FY 2023.

7. **"As of 2010, the percentage of Cape Cod residents aged 45-69 years old was 39%, compared to 32% of Massachusetts residents, and 30% of U.S residents. Furthermore, the percentage of Cape Cod residents aged 70 years and older was 17%, compared to 10% of Massachusetts residents and only 9% of U.S. residents. This older age cohort is anticipated to increase in size by 2035, when 35% of the population is projected to be aged 65-years or older, compared to 24% in 2010."**

- a. **Please update the demographic description for 2020 and the citations. Do these percentages still hold true?**

Please see the updated demographic description below:

As of 2022, the percentage of Cape Cod (*Barnstable County*) residents aged 40-69 years old was 42.2%², compared to 38.1% of Massachusetts residents³, and 36.8% of U.S residents⁴. Furthermore, the percentage of Cape Cod (*Barnstable County*) residents aged 70 years and older was 23.7%, compared to 12.2% of Massachusetts residents and 11.8% of U.S. residents. This older

² <https://censusreporter.org/profiles/05000US25001-barnstable-county-ma/>

³ <https://censusreporter.org/profiles/04000US25-massachusetts/>

⁴ <https://censusreporter.org/profiles/01000US-united-states/>

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age cohort is anticipated to increase in size by 2035, when 22.4% of Massachusetts is projected to be aged 65-years or older, compared to 13.8% in 2010.⁵

Massachusetts has an estimated median age of 40.1 years in 2022, compared to the US which has a median age of 38.9. Barnstable County has the highest median age of 55.6 years.⁶

b. What are the comparable projections for Cape Cod/Barnstable County?

In 2035, 39.98% of Barnstable County is projected to be aged 65-years or older.⁷

c. What are the overall population growth projections for MA and Cape Cod?

In 2035, the population of Barnstable County is expected to reach 211,205 and the population of Massachusetts is expected to reach 7,244,970.⁸

⁵ <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections>

⁶ Summary of U.S. Census Bureau's 2022 County Characteristics Estimates for Massachusetts Counties, August 8, 2023. <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-estimates-by-massachusetts-geography/by-county>

⁷ <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections>

⁸ <https://donahue.umass.edu/business-groups/economic-public-policy-research/massachusetts-population-estimates-program/population-projections>