APPLICATION FOR DETERMINATION OF NEED
SUBSTANTIAL CAPITAL EXPENDITURE
CAPE COD HOSPITAL

APPLICATION # CCHC-22021416-HE

MARCH 1, 2022

BY

CAPE COD HEALTHCARE, INC.
27 PARK STREET
HYANNIS, MA 02601

CAPE COD HEALTHCARE, INC.
APPLICATION # CCHC-22021416-HE
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APPENDIX 1

APPLICATION FORM

Massachusetts Department of Public Health
Determination of Need
Application Form

Version: 11-8-17

Application Type: Hospital/Clinic Substantial Capital Expenditure

Application Date: 03/01/2022

Applicant Name: Cape Cod Healthcare, Inc.

Mailing Address: 27 Park Street

City: Hyannis State: Massachusetts Zip Code: 02601

Contact Person: Michael Bachstein Title: Vice President of Facilities

Mailing Address: 27 Park Street

City: Hyannis State: Massachusetts Zip Code: 02601

Phone: 5088625225 Ext: E-mail: MBachstein@capecodhealth.org

Facility Information

List each facility affected and or included in Proposed Project

1 Facility Name: Cape Cod Hospital

Facility Address: 27 Park Street

City: Hyannis State: Massachusetts Zip Code: 02601

Facility type: Hospital CMS Number: 220135

Add additional Facility Delete this Facility

1. About the Applicant

1.1 Type of organization (of the Applicant): nonprofit

1.2 Applicant's Business Type: (•) Corporation ( ) Limited Partnership ( ) Partnership ( ) Trust ( ) LLC ( ) Other

1.3 What is the acronym used by the Applicant's Organization? CCHC

1.4 Is Applicant a registered provider organization as the term is used in the HPC/CHIA RPO program? (•) Yes ( ) No

1.5 Is Applicant or any affiliated entity an HPC-certified ACO? (•) Yes ( ) No

1.5.a If yes, what is the legal name of that entity? Steward Health Care Network, Inc.

1.6 Is Applicant or any affiliate thereof subject to M.G.L. c. 6D, § 13 and 958 CMR 7.00 (filing of Notice of Material Change to the Health Policy Commission)? ( ) Yes (•) No

1.7 Does the Proposed Project also require the filing of a MCN with the HPC? ( ) Yes (•) No

1.8 Has the Applicant or any subsidiary thereof been notified pursuant to M.G.L. c. 12C, § 16 that it is exceeding the health care cost growth benchmark established under M.G.L. c. 6D, § 9 and is thus, pursuant to M.G.L. c. 6D, §10 required to file a performance improvement plan with CHIA? ○ Yes ◉ No

1.9 Complete the Affiliated Parties Form

2. Project Description

2.1 Provide a brief description of the scope of the project.

See attached narrative.

2.2 and 2.3 Complete the Change in Service Form

3. Delegated Review

3.1 Do you assert that this Application is eligible for Delegated Review? ○ Yes ◉ No

4. Conservation Project

4.1 Are you submitting this Application as a Conservation Project? ○ Yes ◉ No

5. DoN-Required Services and DoN-Required Equipment

5.1 Is this an application filed pursuant to 105 CMR 100.725: DoN-Required Equipment and DoN-Required Service? ○ Yes ◉ No

6. Transfer of Ownership

6.1 Is this an application filed pursuant to 105 CMR 100.735? ○ Yes ◉ No

7. Ambulatory Surgery

7.1 Is this an application filed pursuant to 105 CMR 100.740(A) for Ambulatory Surgery? ○ Yes ◉ No

8. Transfer of Site

8.1 Is this an application filed pursuant to 105 CMR 100.745? ○ Yes ◉ No

9. Research Exemption

9.1 Is this an application for a Research Exemption? ○ Yes ◉ No

10. Amendment

10.1 Is this an application for a Amendment? ○ Yes ◉ No

11. Emergency Application

11.1 Is this an application filed pursuant to 105 CMR 100.740(B)? ○ Yes ◉ No

12. Total Value and Filing Fee

Enter all currency in numbers only. No dollar signs or commas. Grayed fields will auto calculate depending upon answers above.

Your project application is for: Hospital/Clinic Substantial Capital Expenditure

12.1 Total Value of this project:	$137,048,632.00
12.2 Total CHI commitment expressed in dollars: (calculated)	$6,852,431.60
12.3 Filing Fee: (calculated)	$274,097.26
12.4 Maximum Incremental Operating Expense resulting from the Proposed Project:	$4,942,000.00
12.5 Total proposed Construction costs, specifically related to the Proposed Project, If any, which will be contracted out to local or minority, women, or veteran-owned businesses expressed in estimated total dollars.	

13. Factors

Required Information and supporting documentation consistent with 105 CMR 100.210
Some Factors will not appear depending upon the type of license you are applying for.
Text fields will expand to fit your response.

Factor 1: Applicant Patient Panel Need, Public Health Values and Operational Objectives

F1.a.i **Patient Panel:**
Describe your existing Patient Panel, including incidence or prevalence of disease or behavioral risk factors, acuity mix, noted health disparities, geographic breakdown expressed in zip codes or other appropriate measure, demographics including age, gender and sexual identity, race, ethnicity, socioeconomic status and other priority populations relevant to the Applicant's existing patient panel and payer mix.

See attached narrative.

F1.a.ii **Need by Patient Panel:**
Provide supporting data to demonstrate the need for the Proposed Project. Such data should demonstrate the disease burden, behavioral risk factors, acuity mix, health disparities, or other objective Patient Panel measures as noted in your response to Question F1.a.i that demonstrates the need that the Proposed Project is attempting to address. If an inequity or disparity is not identified as relating to the Proposed Project, provide information justifying the need. In your description of Need, consider the principles underlying Public Health Value (see instructions) and ensure that Need is addressed in that context as well.

See attached narrative.

F1.a.iii **Competition:**
Provide evidence that the Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized measures of health care spending. When responding to this question, please consider Factor 4, Financial Feasibility and Reasonableness of Costs.

See attached narrative.

F1.b.i **Public Health Value /Evidence-Based:**
Provide information on the evidence-base for the Proposed Project. That is, how does the Proposed Project address the Need that Applicant has identified.

See attached narrative.

F1.b.ii **Public Health Value /Outcome-Oriented:**
Describe the impact of the Proposed Project and how the Applicant will assess such impact. Provide projections demonstrating how the Proposed Project will improve health outcomes, quality of life, or health equity. Only measures that can be tracked and reported over time should be utilized.

See attached narrative.

F1.b.iii **Public Health Value /Health Equity-Focused:**
For Proposed Projects addressing health inequities identified within the Applicant's description of the Proposed Project's need-base, please justify how the Proposed Project will reduce the health inequity, including the operational components (e.g. culturally competent staffing). For Proposed Projects not specifically addressing a health disparity or inequity, please provide information about specific actions the Applicant is and will take to ensure equal access to the health benefits created by the Proposed Project and how these actions will promote health equity.

See attached narrative.

F1.b.iv Provide additional information to demonstrate that the Proposed Project will result in improved health outcomes and quality of life of the Applicant's existing Patient Panel, while providing reasonable assurances of health equity.

See attached narrative.

F1.c Provide evidence that the Proposed Project will operate efficiently and effectively by furthering and improving continuity and coordination of care for the Applicant's Patient Panel, including, how the Proposed Project will create or ensure appropriate linkages to patients' primary care services.

See attached narrative.

F1.d Provide evidence of consultation, both prior to and after the Filing Date, with all Government Agencies with relevant licensure, certification, or other regulatory oversight of the Applicant or the Proposed Project.

See attached narrative.

F1.e.i Process for Determining Need/Evidence of Community Engagement: For assistance in responding to this portion of the Application, Applicant is encouraged to review *Community Engagement Standards for Community Health Planning Guideline*. With respect to the existing Patient Panel, please describe the process through which Applicant determined the need for the Proposed Project.

See attached narrative.

F1.e.ii Please provide evidence of sound Community Engagement and consultation throughout the development of the Proposed Project. A successful Applicant will, at a minimum, describe the process whereby the "Public Health Value" of the Proposed Project was considered, and will describe the Community Engagement process as it occurred and is occurring currently in, at least, the following contexts: Identification of Patient Panel Need; Design/selection of DoN Project in response to "Patient Panel" need; and Linking the Proposed Project to "Public Health Value".

See attached narrative.

Factor 2: Health Priorities

Addresses the impact of the Proposed Project on health more broadly (that is, beyond the Patient Panel) requiring that the Applicant demonstrate that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

F2.a **Cost Containment:**
Using objective data, please describe, for each new or expanded service, how the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment.

See attached narrative.

F2.b **Public Health Outcomes:**
Describe, as relevant, for each new or expanded service, how the Proposed Project will improve public health outcomes.

See attached narrative.

F2.c **Delivery System Transformation:**
Because the integration of social services and community-based expertise is central to goal of delivery system transformation, discuss how the needs of their patient panel have been assessed and linkages to social services organizations have been created and how the social determinants of health have been incorporated into care planning.

See attached narrative.

Factor 3: Compliance

Applicant certifies, by virtue of submitting this Application that it is in compliance and good standing with federal, state, and local laws and regulations, including, but not limited to M.G.L. c. 30, §§ 61 through 62H and the applicable regulations thereunder, and in compliance with all previously issued notices of Determination of Need and the terms and conditions attached therein .

F3.a Please list all previously issued Notices of Determination of Need

Add/Del Rows	Project Number	Date Approved	Type of Notification	Facility Name
+ -	NA	04/17/2020	Emergency Substantial Change in Service	Cape Cod Hospital

Factor 4: Financial Feasibility and Reasonableness of Expenditures and Costs

Applicant has provided (as an attachment) a certification, by an independent certified public accountant (CPA) as to the availability of sufficient funds for capital and ongoing operating costs necessary to support the Proposed Project without negative impacts or consequences to the Applicant's existing Patient Panel.

F4.a.i **Capital Costs Chart:**
For each Functional Area document the square footage and costs for New Construction and/or Renovations.

		Present Square Footage		Square Footage Involved in Project				Resulting Square Footage		Total Cost		Cost/Square Footage	
				New Construction		Renovation							
Add/Del Rows	Functional Areas	Net	Gross	Net	Gross	Net	Gross	Net	Gross	New Construction	Renovation	New Construction	Renovation
+ -	See Appendix 4.01												
+ -													
+ -													
+ -													
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+ -													
	Total: (calculated)												

F4.a.ii For each Category of Expenditure document New Construction and/or Renovation Costs.

	Category of Expenditure	New Construction	Renovation	Total (calculated)
	Land Costs			
	Land Acquisition Cost			
	Site Survey and Soil Investigation	$22000.		$22000.
	Other Non-Depreciable Land Development			
	Total Land Costs	$22000.		$22000.
	Construction Contract (including bonding cost)			
	Depreciable Land Development Cost			
	Building Acquisition Cost	$611500.		$611500.
	Construction Contract (including bonding cost)	$116271912.	$2625000.	$118896912.
	Fixed Equipment Not in Contract	$7385800.		$7385800.
	Architectural Cost (Including fee, Printing, supervision etc.) and Engineering Cost	$6399812.	$130608.	$6530420.
	Pre-filing Planning and Development Costs	$1487000.		$1487000.
	Post-filing Planning and Development Costs	$2115000.		$2115000.
Add/Del Rows	Other (specify)			
+ -				
	Net Interest Expensed During Construction			
	Major Movable Equipment			
	Total Construction Costs	$134271024.	$2755608.	$137026632.
	Financing Costs:			
	Cost of Securing Financing (legal, administrative, feasibility studies, mortgage insurance, printing, etc			
	Bond Discount			
Add/Del Rows	Other (specify			
+ -				
	Total Financing Costs			
	Estimated Total Capital Expenditure	$134293024.	$2755608.	$137048632.

Factor 5: Relative Merit

F5.a.i Describe the process of analysis and the conclusion that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs as those have been identified by the Applicant pursuant to 105 CMR 100.210(A)(1). When conducting this evaluation and articulating the relative merit determination, Applicant 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.

Proposal:

See attached narrative.

Quality:

See attached narrative.

Efficiency:

See attached narrative.

Capital Expense:

See attached narrative.

Operating Costs:

See attached narrative.

List alternative options for the Proposed Project:

Alternative Proposal:

See attached narrative.

Alternative Quality:

See attached narrative.

Alternative Efficiency:

See attached narrative.

Alternative Capital Expense:

See attached narrative.

Alternative Operating Costs:

See attached narrative.

Add additional Alternative Project | Delete this Alternative Project

F5.a.ii Describe the process of analysis and the conclusion that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs as those have been identified by the Applicant pursuant to 105 CMR 100.210(A)(1). When conducting this evaluation and articulating the relative merit determination, Applicant 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.

Documentation Check List

The Check List below will assist you in keeping track of additional documentation needed for your application.

Once you have completed this Application Form the additional documents needed for your application will be on this list. E-mail the documents as an attachment to: DPH.DON@state.ma.us

- ☒ Copy of Notice of Intent
- ☒ Affidavit of Truthfulness Form
- ☒ Scanned copy of Application Fee Check
- ☒ Affiliated Parties Table Question 1.9
- ☒ Change in Service Tables Questions 2.2 and 2.3
- ☒ Certification from an independent Certified Public Accountant
- ☒ Articles of Organization / Trust Agreement
- ☒ Community Engagement Plan form
- ☒ Current IRS Form, 990 Schedule H CHNA/CHIP and/or Current CHNA/CHIP submitted to Massachusetts AGO's Office
- ☒ Community Engagement Stakeholder Assessment form
- ☒ Community Engagement-Self Assessment form

Document Ready for Filing

When document is complete click on "document is ready to file". This will lock in the responses and date and time stamp the form. To make changes to the document un-check the "document is ready to file" box. Edit document then lock file and submit Keep a copy for your records. Click on the "Save" button at the bottom of the page.

To submit the application electronically, click on the"E-mail submission to Determination of Need" button.

This document is ready to file: ☐ Date/time Stamp:

E-mail submission to Determination of Need

Application Number: CCHC-22021416-HE

Use this number on all communications regarding this application.

☒ Community Engagement-Self Assessment form

APPENDIX 2

NARRATIVE

2. Project Description

Cape Cod Healthcare, Inc (the "Applicant" or the "System"), located at 27 Park Street, Hyannis, MA 02601, is filing a Notice of Determination of Need ("Application") with the Massachusetts Department of Public Health for the construction of a new facility on the main campus of Cape Cod Hospital (the "Hospital" or "CCH") at the same address. The proposed facility will contain the following: (1) relocated and expanded medical oncology department; (2) relocated radiation oncology department; (3) relocated medical/surgical unit consisting of 32 beds; and (4) shell space for future projects (collectively, the "Proposed Project"). In addition, the Hospital's outpatient obstetrics and gynecology department will be relocated to accommodate the new facility.

The Applicant is the predominant provider of healthcare services for residents and visitors of Cape Cod. With more than 450 physicians, 5,300 employees and 790 volunteers, Cape Cod Healthcare includes two acute care hospitals, homecare and hospice services, a skilled nursing and rehabilitation facility, an assisted living facility, an ambulatory surgery center, and numerous primary and specialty care physician practices along with many other health programs. Cape Cod Hospital is a not-for-profit regional medical center located in Hyannis, Massachusetts. In addition to emergency services, the Hospital also provides Barnstable County residents and visitors with access to a full complement of hospital services including cardiovascular surgery, medical and radiation oncology services, and inpatient psychiatric care.

In order to meet the needs of the Hospital's Patient Panel, the Applicant requests DoN approval to construct a four-story facility on the Hospital's main campus that will include a relocated and expanded outpatient oncology service, a relocated radiation therapy service, and a relocated, 32-bed medical-surgical unit, as well as shell space for future services as demand warrants. The Proposed Project is necessary to co-locate and centralize cardiac and cancer services, provide an improved patient care experience through modern facilities and technology, and expand capacity to medical oncology services. Due to the aged infrastructure of the Hospital's current campus, further renovations to bring the Hospital's oncology services and cardiac medical-surgical units are not feasible given the limited footprint of the building. In addition to prohibitive costs, the necessary renovations to bring the space into compliance would result in fewer beds and would not include space to support clinical team collaboration, to accommodate new technologies, or to provide amenities to families. Moreover, the Hospital's current oncology departments are located in multiple, non-adjacent areas. Through the Proposed Project, existing cancer services will be centralized in one building, in addition to expanded integrative services allowed by the new facility's larger space. Not only will centralized services improve patient satisfaction and provide more efficient care delivery, but the Applicant anticipates this model will promote improved care coordination and continuity of care, in turn further improving health outcomes and quality of life.

Finally, the Proposed Project will meaningfully contribute to Massachusetts' goals for cost containment by providing high-quality services within the community. First, increased capacity for medical appointments and chemotherapy will reduce delays to beginning and receiving treatment. Second, the proposed cancer center will offer same-day acute appointments which has been shown to reduce emergency room utilization and inpatient admissions. Lastly, the proposed cancer center will expand its integrative services offerings to promote wholistic well-being and improved health outcomes. Moreover, the relocated services will not be reimbursed at different rates. Therefore, the Proposed Project will further The Commonwealth's goals of containing the rate of growth of total medical expenses ("TME") and total healthcare expenditures ("THCE") by providing access to outpatient oncology services and inpatient cardiac services on Cape Cod.

In sum, the Proposed Project is necessary to ensure access to high-quality outpatient cancer and inpatient cardiac care that is accessible to the Hospital's Patient Panel, without increasing health care costs. Through the centralization of services and facility improvements afforded by the new facility, the Applicant will improve care delivery as well as health outcomes and quality of life. Accordingly, the Proposed Project meets the factors of review for Determination of Need approval.

Factor 1: Applicant Patient Panel Need, Public Health Values and Operational Objectives

F1.a.i **Patient Panel:**

Describe your existing Patient Panel, including incidence or prevalence of disease or behavioral risk factors, acuity mix, noted health disparities, geographic breakdown expressed in zip codes or other appropriate measure, demographics including age, gender and sexual identity, race, ethnicity, socioeconomic status and other priority populations relevant to the Applicant's existing patient panel and payer mix.

A. Cape Cod Healthcare

Cape Cod Healthcare is the largest provider of healthcare services for residents and visitors of Cape Cod. With more than 450 physicians, 5,300 employees and 790 volunteers, the System has two acute care hospitals (Cape Cod Hospital and Falmouth Hospital), homecare and hospice services, a skilled nursing and rehabilitation facility (JML Care Center), an assisted living facility (Heritage at Falmouth), and numerous health programs. It provides the majority of care for Barnstable County's year-round residents as well as the more than 5 million seasonal tourists who vacation there each summer.

Patient Panel[1]

Consistent with state and national trends due to the COVID-19 pandemic, CCHC's patient panel decreased slightly during the height of the pandemic but has largely returned to pre-pandemic levels when accounting for utilization attributed solely to COVID-19 testing, which the System provided exclusively at Cape Cod Hospital.

In FY21, approximately 55% of the Applicant's Patient Panel are female and 45% are male. The majority of patients are aged 18-64. 37% of patients are aged 65 and older as well as 10% of patient who are under the age of 18. 81% of patients self-identified as White. Patients also self-identified as Black/African American – 3.3%, Asian - .65%, and American Indian/Alaska Native - .17%. An additional 14% of patients self-reported as a race or ethnicity other than the options available or either declined to report their race or ethnicity.

[1] CCHC converted to a new electronic health record in FY2021. Panel data reflects differences in system reporting.

TABLE 1: CAPE COD HEALTHCARE DEMOGRAPHICS[2]

Demographic Measure	FY19		FY20		FY21	
	Count (n)	Pct. (%)	Count (n)	Pct. (%)	Count (n)	Pct. (%)
Unique Patients	**167,432**		**148,994**		**224,079**	
GENDER						
Male	70,481	42%	63,151	42%	100,209	45%
Female	96,914	58%	85,785	58%	124,327	55%
Other/Unknown	37	0%	58	0%	173	0%
Total	**167,432**	**100%**	**148,994**	**100%**	**224,709**	**100%**
AGE						
0-17	19,223	11%	14,330	10%	21,917	10%
18-64	89,083	53%	80,732	54%	120,259	54%
65+	61,218	36%	55,772	37%	82,533	37%
Total[3]	**169,524**	**100%**	**150,834**	**100%**	**224,709**	**100%**
RACE/ETHINICITY						
American Indian or Alaska Native	0	0.00%	0	0.00%	387	0.17%
Asian	767	0.46%	654	0.44%	1,471	0.65%
Black or African American	3,967	2.37%	3,372	2.26%	7,479	3.33%
Hispanic or Latino	190	0.11%	186	0.12%	0	0.00%
Native Hawaiian or Other Pacific Islander	0	0.00%	0	0.00%	57	0.03%
White or Caucasian	84,541	50.49%	71,472	47.97%	182,514	81.22%
Other/Unknown	77,967	46.57%	73,310	49.20%	32,801	14.60%
Total	**167,432**	**100%**	**148,994**	**100%**	**224,709**	**100%**

[2] Included entities for FY19 and FY20 are Cape Cod Hospital and Falmouth Hospital. Medical Affiliated of Cape Cod is included in reported beginning in FY21.
[3] CCHC converted to a new electronic health record in FY2021. The former system counted patients before and after their birthday if they had multiple visits. Due to this counting system, the totals for FY19 and FY20 reflect a slightly higher number of patients than true unique patients.

The majority of CCHC's patients reside in Barnstable County, though a sizeable number of patients originated from elsewhere in Massachusetts (12%) as well as outside of Massachusetts (7%).

TABLE 2: CAPE COD HEALTHCARE GEOGRAPHIC ORIGIN

Geographic Origin	FY19		FY20		FY21	
	Count (n)	Pct. %	Count (n)	Pct. %	Count (n)	Pct. %
Barnstable	33,220	19%	30,110	20%	42,288	19%
Bourne	8,443	5%	7,461	5%	10,887	5%
Brewster	6,312	4%	5,653	4%	8,174	4%
Chatham	4,466	3%	4,034	3%	5,629	3%
Dennis	9,315	5%	8,405	6%	11,895	5%
Eastham	3,262	2%	2,978	2%	4,250	2%
Falmouth	20,985	12%	19,096	13%	26,076	12%
Harwich	9,107	5%	8,231	5%	11,233	5%
Mashpee	9,522	6%	8,611	6%	11,946	5%
Orleans	4,601	3%	4,017	3%	5,469	2%
Provincetown	1,455	1%	1,224	1%	1,930	1%
Sandwich	11,979	7%	10,922	7%	15,293	7%
Truro	999	1%	900	1%	1,383	1%
Wellfleet	1,686	1%	1,536	1%	2,222	1%
Yarmouth	16,351	10%	14,916	10%	21,078	9%
Barnstable County	**141,703**	**83%**	**128,094**	**85%**	**179,753**	**80%**
Other MA	17,100	10%	14,692	10%	27,717	12%
Outside MA	11,441	7%	7,973	5%	16,205	7%
Unknown	727	0%	344	0%	1,034	0%
TOTAL[4]	**170,971**	**100%**	**151,103**	**100%**	**224,709**	**100%**

The majority of the Applicant's Patient Panel received insurance coverage through Medicare Fee-for-Service (42.6%) and an additional 9.2% of patients were insured by a Medicare Advantage plan. In addition, 32% of patients were covered by a commercial plan, as well as MassHealth (2.8%) and managed Medicaid (9.3%).

TABLE 3: CAPE COD HEALTHCARE PAYER MIX

APM Contract Percentages				Non-ACO and Non-APM Contracts			
	FY19	FY20	FY21		FY19	FY20	FY21
ACO and APM Contracts	3.8%	4.2%	3.8%	Commercial HMO/POS	22.7%	22.1%	22.8%
				Commercial PPO/Indemnity	8.7%	8.8%	9.2%
				MassHealth	2.6%	2.6%	2.8%
Non-ACO and Non-APM Contracts	96.2%	95.8%	96.2%	Medicaid MCO	9.3%	10.1%	9.3%
				Medicare	44.2%	43.6%	42.6%
				Medicare Advantage	8.0%	8.3%	9.2%
				All Other	4.4%	4.5%	4.2%
TOTAL	100%	100%	100%	TOTAL	100%	100%	100%

[4] CCHC converted to a new electronic health record in FY2021. For FY19 and FY20 only, if a patient was seen multiple times per year and reported a different town, they are counted in each town

B. Cape Cod Hospital

Cape Cod Hospital's Patient Panel is largely reflective of that of the System's panel. In FY21, 56% of patients were female and 44% were male. The majority of patients were aged 18-64 (53%), followed by ages 65 and older (38%), and ages 0-17 (9%). Approximately 82% of patients self-identified as White, as well as 3% Black/African American, and 0.65% Asian. As noted above, race and ethnicity measures are self-reported by patients and as such, approximately 14% of patients either identified as a race or ethnicity other than the options listed or declined to provide their racial/ethnic information.

TABLE 4: CAPE COD HOSPITAL DEMOGRAPHICS

Demographic Measure	FY19		FY20		FY21	
	Count (n)	Pct. (%)	Count (n)	Pct. (%)	Count (n)	Pct. (%)
Unique Patients	**120,234**	**100%**	**109,079**	**100%**	**184,655**	**100%**
GENDER						
Male	50,263	42%	45,914	42%	80,763	44%
Female	69,940	58%	63,114	58%	103,733	56%
Other/Unknown	31	0%	51	0%	159	0%
Total	**120,234**	**100%**	**109,079**	**100%**	**184,655**	**100%**
AGE						
0-17	12,877	11%	9,892	9%	15,756	9%
18-64	63,206	52%	58,761	53%	97,989	53%
65+	45,602	37%	41,680	38%	70,910	38%
Total[5]	**121,685**	**100%**	**110,333**	**100%**	**184,655**	**100%**
RACE/ETHNICITY						
American Indian or Alaska Native	0	0.00%	0	0.00%	272	0.15%
Asian	521	0.43%	464	0.43%	1,174	0.64%
Black or African American	3,100	2.58%	2,694	2.47%	6,181	3.35%
Hispanic or Latino	173	0.14%	163	0.15%	0	0.00%
Native Hawaiian or Other Pacific Islander	0	0.00%	0	0.00%	41	0.02%
White or Caucasian	60,133	50.01%	52,067	47.73%	151,098	81.83%
Other/Unknown	56,307	46.83%	53,691	49.22%	25,889	14.02%
Total	**120,234**	**100%**	**109,079**	**100%**	**184,655**	**100%**

[5] CCHC converted to a new electronic health record in FY2021. The former system counted patients before and after their birthday if they had multiple visits. Due to this counting system, the totals for FY19 and FY20 reflect a slightly higher number of patients than true unique patients.

More than 80% of Cape Cod Hospital's Patient Panel resides in Barnstable County. The Hospital also provides care to a significant number of patients (17%) who visit Cape Cod or reside there during the summer months.

TABLE 5: CAPE COD HOSPITAL GEOGRAPHIC ORIGIN

Patient Residence	FY19		FY20		FY21	
	Count (n)	Pct. (%)	Count (n)	Pct. (%)	Count (n)	Pct. (%)
Barnstable	31,270	25%	28,474	26%	39,030	21%
Bourne	1,922	2%	1,985	2%	7,164	4%
Brewster	6,278	5%	5,637	5%	7,790	4%
Chatham	4,442	4%	4,009	4%	5,359	3%
Dennis	9,213	7%	8,332	8%	11,112	6%
Eastham	3,247	3%	2,971	3%	4,051	2%
Falmouth	3,077	2%	3,587	3%	16,999	9%
Harwich	9,058	7%	8,169	7%	10,639	6%
Mashpee	3,686	3%	3,543	3%	8,643	5%
Orleans	4,579	4%	3,991	4%	5,210	3%
Provincetown	1,445	1%	1,213	1%	1,828	1%
Sandwich	6,234	5%	6,066	5%	11,730	6%
Truro	966	1%	895	1%	1,288	1%
Wellfleet	1,673	1%	1,529	1%	2,106	1%
Yarmouth	16,133	13%	14,776	13%	19,654	11%
Barnstable County Total	**103,223**	**84%**	**95,177**	**86%**	**152,603**	**83%**
Other MA	10,504	9%	9,316	8%	18,336	10%
Outside MA	8,854	7%	6,256	6%	12,920	7%
Unknown	564	0%	278	0%	796	0%
TOTAL	**123,145**	**100%**	**111,027**	**100%**	**184,655**	**100%**

More than 50% of Cape Cod Hospital's patients were insured through the Medicare program in FY21 (43.4% are covered by Medicare Fee-for-Service and an additional 9.8% receive coverage through a Medicare Advantage plan). 29.9% of patients are insured by commercial plans. Additionally, 9.7% of patients were insured by a Medicare MCO as well as 2.6% of patients who received coverage through MassHealth.

TABLE 6: CAPE COD HOSPITAL PAYER MIX

APM Contract Percentages				Non-ACO and Non-APM Contracts			
	FY19	FY20	FY21		FY19	FY20	FY21
ACO and APM Contracts	4.2%	4.6%	4.2%	Commercial HMO/POS	21.7%	21.1%	21.8%
				Commercial PPO/Indemnity	8.2%	8.1%	8.7%
				MassHealth	2.3%	2.4%	2.6%
Non-ACO and Non-APM Contracts	95.8%	95.4%	95.8%	Medicaid MCO	9.7%	10.6%	9.7%
				Medicare	45.6%	44.8%	43.4%
				Medicare Advantage	8.6%	8.8%	9.8%
				All Other	4.0%	4.2%	4.0%
TOTAL	**100%**	**100%**	**100%**	**TOTAL**	**100%**	**100%**	**100%**

F1.a.ii **Need by Patient Panel:**

Provide supporting data to demonstrate the need for the Proposed Project. Such data should demonstrate the disease burden, behavioral risk factors, acuity mix, health disparities, or other objective Patient Panel measures as noted in your response to Question F1.a.i that demonstrates the need that the Proposed Project is attempting to address. If an inequity or disparity is not identified as relating to the Proposed Project, provide information justifying the need. In your description of Need, consider the principles underlying Public Health Value (see instructions) and ensure that Need is addressed in that context as well.

The Applicant requests DoN approval to construct a four-story facility on the main campus of Cape Cod Hospital that will include a relocated and expanded medical oncology service, a relocated radiation oncology service, and relocate 32 medical-surgical beds, as well as shell space for future services as demand warrants. The Proposed Project seeks to address care delivery constraints created by the aged infrastructure of the Hospital's current facilities. Cape Cod Hospital opened in 1920 and its main campus is comprised of several buildings built throughout the 20th century. Through the Proposed Project, the Applicant seeks to ensure that the Hospital will be able to meet future demand on Cape Cod for medical oncology, radiation therapy and inpatient cardiac care. The Proposed Project will offer an improved patient care experience in a state-of-the-art facility close to home, limiting the need for patients to travel to Boston to seek care.

The new facility will ensure that the Hospital can meet future demand for outpatient oncology services and inpatient cardiac. 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.[6] 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.[7] The age of the Hospital's Patient Panel is further evidenced by the percentage of patients covered by Medicare and Medicare Advantage.[8] 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.[9] Accordingly, the Hospital's Patient Panel will require access to outpatient oncology services and inpatient cardiac care in facilities that can meet demand and facilitate the provision of high-quality care.

HISTORICAL AND PROJECTED UTILIZATION

A. Outpatient Oncology Services

The CDC estimates that more than two-thirds of all new cancers are diagnosed in patients aged 60 years and older.[10] More than 1.7 million people were diagnosed with cancer in 2018, but that number is projected to climb to 2.2 million by 2050 with additional cancer prevention measures. Moreover, the largest increase in new diagnoses is expected to impact adults ages 75 and over.[11] These increases are believed to be attributed to the body's decreasing ability to repair DNA cells as adults age.[12] As a result of increased life expectancy, the number of cancer cases is expected to increase among adults over the age of 65.[13]

The increasing incidence of cancer in the Hospital's Patient Panel is evidenced by the growth in utilization of the Hospital's cancer services in recent years. Between FY19 and FY21, the number of unique patients receiving care from Cape Cod Hospital's medical oncology service increased by 18%. This includes a 12.5% increase in the number of physician visits, as well as an 8.4% increase in the number of non-chemotherapy infusions and injections. Moreover, utilization of cancer services at CCH significantly increased in FY21 and is expected to steadily increase due to the aging population within the Hospital's

[6] UMASS DONAHUE INSTITUTE. Long-term Population Projections for Massachusetts Regions and Municipalities. March 2015.
[7] *Id.*
[8] The percentage of Hospital patients covered by Medicare and Medicare in FY21 was 53.2%.
[9] *Supra note 5.*
[10] CDC, Cancer Prevention During Older Adulthood. *Available at* https://www.cdc.gov/cancer/dcpc/prevention/older-adulthood.htm
[11] *Id.*
[12] Browner, Ilene. Applications in Geriatric Oncology. *Available at* https://www.hopkinsmedicine.org/gec/series/cancer_aging.html
[13] *Id.*

Patient Panel and on Cape Cod. The following table details the Hospital's historical medical oncology volume.

TABLE 7: HISTORIC OUTPATIENT ONCOLOGY VOLUME

	FY19	FY20	FY21
Provider Visits	12,286	11,544	13,824
Total Infusion and Injections	25,780	25,479	26,720
Chemotherapy	12,045	11,704	11,826
Non-Chemotherapy Treatments	13,735	13,775	14,894

The number of radiation oncology visits and treatments have remained relatively stable in recent years as detailed in the following table.

TABLE 8: HISTORIC RADIATION THERAPY VOLUME

	FY19	FY20	FY21
Visits	5,131	4,904	5,646
Total Treatments and Procedures	19,351	19,343	18,336
Brachytherapy Treatments	77	98	81
LINAC Treatments	18,062	18,025	17,044
CT Simulation Procedures	1,212	1,220	1,211

The Hospital anticipates its Patient Panel will continue to seek services for cancer care as demonstrated by the following projections. Specifically, the Applicant anticipates demand for medical oncology will increase between 16% and 20% in FY27. This includes a 16% increase in provider visits and a 20% increase in infusions and injections. The following projections are based on Sg2 demand forecasts, additional physician capacity, and operational efficiency anticipated to result from the Proposed Project.

TABLE 9: PROJECTED MEDICAL ONCOLOGY VOLUME

	FY23	FY24	FY25	FY26	FY27
Provider Visits	14,709	14,958	15,751	15,931	16,069
Total Infusion and Injections	28,964	29,392	30,792	32,128	32,128
Chemotherapy	12,819	13,009	13,628	14,220	14,220
Non-Chemotherapy Treatments	16,145	16,383	17,164	17,909	17,909

Based on Sg2 forecasts, demand for radiation therapy procedures is expected to grow by approximately 2% from FY21 to FY27.

TABLE 10: PROJECTED RADIATION THERAPY VOLUME

	FY23	FY24	FY25	FY26	FY27
Visits	5,691	5,686	5,674	5,669	5,759
Total Treatments and Procedures	18,484	18,466	18,429	18,410	18,704
Brachytherapy Treatments	82	82	81	81	83
LINAC Treatments	17,180	17,164	17,130	17,112	17,385
CT Simulator Procedures	1,222	1,220	1,218	1,217	1,236

B. Cardiac Medical-Surgical Unit

In 2021, as with prior years, heart disease was the leading cause of death in the United States for both men and women, and for most ethnic and racial groups.[14] Approximately 18.2 million adults aged 20 and older have coronary artery disease (about 6.7%), resulting in approximately 360,900 deaths each year.[15] Of those deaths, only 20% occurred in people under the age of 65.[16] This is because aging causes changes to the heart and its blood vessels; similarly, with age, the heart cannot beat as fast during physical exertion or stress.[17] Additionally, many adults will experience buildup of fatty deposits in the walls of arteries which occurs over a person's lifetime.[18] As a result of these age-related factors, heart disease is most prevalent in older adults and is more likely to warrant hospital-level care as adults age.

As shown in the following table, demand for the Hospital's inpatient cardiac medical-surgical services has remained relatively consistent since FY19, notwithstanding reduced demand due to hospital avoidance during the coronavirus pandemic.

TABLE 11: HISTORIC INPATIENT CARDIAC VOLUME

	FY19	FY20	FY21
Discharges	2,908	2,264	2,783
Days	10,590	8,629	10,596
ADC	29	24	29

Based on Sg2's cardiology and medical-surgical forecasts, in conjunction with historical volume, demand for inpatient cardiac medical-surgical services on Cape Cod is not expected to increase significantly. The Applicant anticipates inpatient cardiac discharges and patient days will increase by approximately 4%. Project utilization of the Hospital's inpatient cardiac services is detailed in the following table

TABLE 12: PROJECTED INPATIENT CARDIAC VOLUME

	FY23	FY24	FY25	FY26	FY27
Discharges	3,019	3,021	3,027	3,027	3,024
Days	10,992	11,003	11,024	11,024	11,014
ADC	30	30	30	30	30

EXPANDED ACCESS AND IMPROVED PROVISION OF CARE THROUGH THE PROPOSED PROJECT

A. Outpatient Oncology Services

To meet the projected demand for outpatient cancer services by the Patient Panel, the Proposed Project will address a number of physical plant limitations of the current outpatient oncology departments. The Hospital's existing oncology exam rooms are located in a separate, non-adjacent area of the Hospital from the infusion therapy suite. Patients must travel from the exam room suite to the infusion suite if they have both appointments on the same day. Similarly, infusion patients must travel from the infusion suite to have blood drawn at the Hospital's outpatient laboratory which is required for same-day infusions. Additionally, the infusion bays are undersized per Facility Guidelines Institute ("FGI") standards and do not afford the required clearance between chairs and walls/partitions. Moreover, the current infusion therapy suite utilizes an open floor plan, which in addition to insufficient spacing between chairs, further reduces visual and acoustical privacy for patients. Another limitation of the infusion suite is that one of the two bathrooms available is located outside of the suite, requiring patients to leave the unit and traverse a number of

[14] CDC, Heart Disease Facts. *Available at* https://www.cdc.gov/heartdisease/facts.htm
[15] *Id.*
[16] *Id.*
[17] NATIONAL INSTITUTE ON AGING, Heart Health and Aging. *Available at* https://www.nia.nih.gov/health/heart-health-and-aging
[18] *Id.*

obstacles, including wires from infusion equipment and accompanying family members who spill-over from their designated areas.

Further impacting the efficiency of the existing services is that larger clinician work areas are frequently also used for patient education, reducing or eliminating space available for care teams to collaborate due to social distancing requirements. Space is also an issue for the services' pharmacy, which does not have adequate room for drug and supply storage. Furthermore, the existing pharmacy does not have a redundant double negative pressure clean room so that if a disruption occurs, pharmacists must relocate to the Hospital's main pharmacy. Also lacking from the existing space is room to provide patients and their families with wrap-around services, such as rehabilitation therapy and medical nutrition.

To meet project demand, the new cancer center will increase the number of exam rooms from 12 to 16 and the number of infusion bays from 19 to 26. Additionally, the Proposed Project will centralize medical oncology services by co-locating exam rooms, infusion therapy, pharmacy services, and the oncology laboratory in one location in the new building. Further contributing to enhanced patient-centered care, the proposed cancer center will include space for wrap-around services and integrative wellness therapies that will allow the Hospital to support patients' physical and emotional well-being in a location that is accessible for patients. To ensure patient privacy, infusion bays will be enclosed by wall structures on both sides of the patient chair and will provide in-suite access to six (6) bathrooms. Lastly, the Center will also provide significantly more space for clinical staff, including workstations, conference rooms, and a dedicated pharmacy that will facilitate oncology staff communication, triple the amount of space available for medication preparation, and will provide for redundant double negative pressure clean rooms. The overall objective is to provide all outpatient cancer services in one location.

The proposed facility will also include the Hospital's relocated radiation therapy department. This service must be relocated due to the current size of the existing linear accelerator ("LINAC") and computed tomography ("CT") simulator vaults. Built in 1979 and 1996, the vaults are undersized to support current technology and required storage. Moreover, size of the vaults limits the ability to provide efficient services in patient-friendly space. Similarly, the existing CT simulator vault cannot accommodate a replacement machine due to size limitations, nor can sightlines be maintained due to the distance between the vault and the control room.[19] Further contributing to the need to expand the unit's footprint, the existing unit does not have space to provide equipment storage, clean and dirty utility rooms, or designated waiting rooms. Lastly, brachytherapy procedures are currently performed in the LINAC vaults because there is insufficient space to construct a dedicated brachytherapy vault. The current workaround is inefficient because of the disruption to care delivery caused by switching between external and internal radiation treatments.

Through a significantly larger footprint in the new facility, the radiation therapy service will have appropriately sized radiation therapy vaults for the two LINACs (including one (1) replacement unit and one relocated unit) and one (1) designated brachytherapy vault with control room. Similarly, the new facility will include a larger scanner room to accommodate one (1) replacement CT simulator. Storage for gurneys will be available, eliminating the use of storage in the waiting room. Additional space will also be provided for clean and dirty utility rooms in furtherance of infection control. Furthermore, the department will include multiple, adjacent waiting rooms for men, women, and patients with a companion, a necessary and requested element to ensuring patient privacy. Another key feature of the relocated radiation therapy suite is the inclusion of infusion and hydration capability so that those services can be provided as needed in order to eliminate the need to transfer patients from radiation therapy to medical oncology. Lastly, the proposed facility includes designated clinical workspaces for the radiation therapy department, including a conference room with advanced technology needed to run multi-disciplinary case discussion and treatment plan reviews. The new cancer center was designed not only to meet future demand, but importantly, it was designed to ensure care-delivery is patient-centered.

B. Inpatient Cardiac Services

The Proposed Project will ensure the Hospital will be able to provide access such services on Cape Cod by addressing physical plant limitations of the Hospital's existing cardiac medical-surgical service that is located in a building built in the 1950s. The Hospital's current inpatient cardiac medical-surgical service is

[19] Currently, in order to safely monitor patients, closed-circuit television is used. This method is allowed under FGI guidelines, but it not a best practice.

located in two smaller, separate units. Despite several renovations to the units, the rooms are undersized and do not provide sufficient transfer-side clearance around patient beds. Additionally, the limited room size cannot accommodate a sleeping area for family members, nor a dedicated workspace for providers requiring computers to be brought from room to room, contributing to infection control issues. The current configuration of the units and rooms also is not designed to optimally accommodate equipment needs. The units in the 70-year-old building have been renovated over the years to maintain compliance with facility standards to the extent possible; however, further renovations are not feasible given the limited footprint of the building. In addition to being cost prohibitive, the necessary renovations would result in 12 fewer beds (a 33% reduction) and would not include space to support clinical team collaboration, to accommodate new technologies, or to provide amenities to families. Due to current design limitations and the difficulty with renovating the existing units to provide quality care, the Hospital determined that a new facility would best accommodate future demand and the needs of its patient panel.

The new inpatient cardiac unit will combine the existing smaller units into one unit, which will enable better clinical team collaboration. To ensure the provision of patient-centered care, the unit is designed to meet and exceed the current FGI standards for inpatient care including required bed clearance, non-slip flooring, space for family visitation, including sleeping accommodations, handwashing sinks in addition to the toilet area sink, and in-room showers. Additionally, each room will conform to acoustic requirements to mitigate exterior noise, isolate sound within each room, and use materials that will provide sound absorption. These features have been shown to improve sleep, and in turn promote recovery and emotional well-being. Furthermore, patients will be able control their lighting, entertainment, and nurse call system from an easy-to-use, centralized panel. Lastly, the new unit will have dedicated clinical workstations built outside of adjoining rooms to limit cross-contamination. By improving the design of the cardiac medical-surgical unit, staff will be able to provide more efficient, patient-centered care.

CONCLUSION

For the reasons discussed above, the Proposed Project is necessary to ensure the Hospital's existing and future Patient Panel has access to cancer and cardiac services close to home. Given the advanced age of the Applicant's current Patient Panel coupled with population projections for Cape Cod, the Proposed Project will ensure continued access to high-quality cancer and cardiac services close to home for the Hospital's Patient Panel. As a result of the Hospital's severely undersized cancer and cardiac units, the proposed new facility in needed to address the physical plant limitations that cannot be remedied through additional renovations. In addition to the significantly larger footprint that will be provided through the Proposed Project, the new facility will include elements determined by patients, family, and providers to be necessary for a truly patient-centered, accessible, and coordinated care experience. To that end, the Proposed Project will facilitate the provision of high-quality, patient-centered care within the community with expanded access to outpatient cancer services and an improved environment for inpatient cardiac services.

F1.a.iii **Competition:**

Provide evidence that the Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized measures of health care spending. When responding to this question, please consider Factor 4, Financial Feasibility and Reasonableness of Costs.

The Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized measures of health care spending by providing an improved environment for inpatient cardiac patients and expanded outpatient cancer services on Cape Cod, facilitating the delivery of high-quality, accessible care in the community. These improvements are necessary to ensure access to high-quality cancer and cardiac services remain available to residents close to home.

The Applicant is committed to improving operational efficiencies and similarly improving care delivery. With this overarching goal in mind, the Proposed Project will centralize currently physically fragmented services in order to promote enhanced communication and collaboration amongst care teams and ensure continuity for patients, leading to quality outcomes. With respect to the proposed cancer center, the new facility will co-locate exam rooms, physician offices, infusion bays, radiation therapy, pharmacy, laboratory, and patient and family education space to provide a patient-centered experience and promote clinical efficiencies in

the delivery of care. This model for co-located, comprehensive care delivery will lead to positive health outcomes and in turn, cost containment. Additional oncology exam rooms, as well as additional oncologists, will reduce wait times for appointments thereby reducing treatment wait times. Moreover, the new facility will include access to same-day urgent care appointments for cancer patients which the Hospital anticipates will further emergency department avoidance efforts and help to reduce health care costs. To that end, the Proposed Project seeks to expand access to cancer care at Cape Cod Hospital that will advance cost containment goals through timely treatment which may lessen the burden of disease on the patient and avoid costs associated with later diagnoses.

Furthermore, the Proposed Project is necessary for the provision of care in an environment that meets or exceeds current design standards for hospital facilities. As previously noted, the Hospital's existing services are located within aging buildings that cannot be renovated to meet these standards. Notably, each of the existing services proposed for the new facility do not meet the current square footage requirements. In order to meet the square footage requirements, the Hospital would need to reduce the number of exam rooms, infusion bays, and beds, which would further reduce access to care on Cape Cod, leading the Patient Panel to seek care in Boston at higher costs. Through the Proposed Project, the Hospital will be able to meet demand and provide care in the community where its Patient Panel resides.

To that end, the Proposed Project will further the Applicant's mission to provide high-quality, comprehensive health care in the community through the construction of a facility designed to accommodate clinical collaboration, co-located services, updated technology, and space for integrative services. Through these design considerations, including expanded access to medical oncology services, the Applicant anticipates the Proposed Project will improve health outcomes for the Applicant's Patient Panel and therefore will compete on the basis of price and health care spending.

F1.b.i **Public Health Value /Evidence-Based:**

Provide information on the evidence-base for the Proposed Project. That is, how does the Proposed Project address the Need that Applicant has identified.

Evidence-based literature supports the Proposed Project as necessary to providing high-quality care and promoting timely access to cardiac and cancer services.

CANCER AND ACCESS TO OUTPATIENT MEDICAL ONCOLOGY CARE

Cancer refers to a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body.[20] When cells grow old or become damaged, they should die and be replaced by new, healthy cells.[21] However, if this process is interrupted and damaged cells multiply instead of dying, the cells may form a tumor which can be cancerous or not (known as a benign tumor).[22] Chemotherapy is a drug treatment commonly used to treat cancer because of its ability to kill cells that grow and multiply quickly, including cancerous cells.[23] It can be used as a stand-alone treatment, as a follow-up to surgery, or in preparation for other treatments, such as radiation and surgery.[24] As a drug treatment, chemotherapy is most often administered intravenously and can last between a few minutes and a few hours.[25]

While chemotherapy has been demonstrated to be an effective component of cancer treatment, its efficacy is dependent on timely initiation. Delays of as little as four weeks have been shown to increase mortality

[20] NATIONAL CANCER INSTITUTE, What is Cancer? *Available at* https://www.cancer.gov/about-cancer/understanding/what-is-cancer
[21] *Id.*
[22] *Id.*
[23] MAYO CLINIC, Chemotherapy. *Available at* https://www.mayoclinic.org/tests-procedures/chemotherapy/about/pac-20385033
[24] *Id.*
[25] AMERICAN CANCER SOCIETY, Getting IV or Injectable Chemotherapy. *Available at* https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy/getting-chemotherapy.html#:~:text=With%20chemo%20infusions%2C%20chemotherapy%20drugs,different%20types%20of%20injectable%20chemo.

compared to no delay in treatment.[26] One study of patients with recent breast cancer diagnoses found that the risk of death when compared to people who started chemotherapy within 30 days of surgery increased 94% for people who started chemotherapy 31 to 60 days after surgery, 145% for people who started chemotherapy 61 to 90 days after surgery, and 179% for people who started chemotherapy more than 90 days after surgery.[27] In addition to decreased survival rates, delayed chemotherapy for some cancers has been associated with incomplete chemotherapy courses, further impacting life expectancy.[28] Therefore, adequate access to chemotherapy is necessary to ensure patients have timely access to treatment close to home.

In addition to timely access to cancer treatment, a growing body of evidence supports access to same-day, acute care appointments for cancer patients. The provision of cancer-focused urgent care decreases the need for patients to seek care through the emergency department for cancer-related presentations such as nausea, vomiting, dehydration, weakness, and headache.[29] Same-day appointments can be used by providers to re-direct clinically appropriate away from the emergency department to a more convenient space that provides dedicated cancer care.[30] This model has been shown to reduce avoidable emergency department utilization and hospital admissions, in turn providing an improved patient experience and health outcomes.[31]

Another form of cancer treatment is the use of radiation therapy. Prior to initiating radiation therapy, a CT simulator is often used to acquire three-dimensional imaging for treatment planning. These images allow the radiation care team to precisely locate the tumor and surrounding areas that will be targeted during radiation therapy. One such radiation device is a LINAC, which is most commonly used to provide external beam radiation therapy.[32] LINACs deliver high-energy x-rays to the patient's tumor so that cancer cells are damaged while nearby healthy tissue is unaffected.[33] Through a series of ongoing treatments, the damaged cancer cells will die and therefore will stop spreading and multiplying.[34] Radiation therapy can also be delivered internally through a treatment called brachytherapy.[35] This treatment works similar to external radiation therapy in that cancer cells will be destroyed and killed over time, but the radiation source (a seed, ribbon, or capsule) is implanted in or near the tumor.[36] Once implanted, the source will continue to give off radiation until removed, which may be hours or days, or until the radiation wears off in the case of permanent implants.[37] Which treatment plan is pursued is dependent on a number of factors, including the type and stage of the cancer, the patient's general health, and their preferences.[38] As a result, it is necessary to ensure access to a variety of treatment options in order to provide care to the most patients.

CARDIOVASCULAR DISEASE AND ACCESS TO INPATIENT CARE

Cardiovascular disease is a general term used to describe several conditions affecting the heart.[39] In 2020, heart disease was the number one cause of death in the United States and the number two cause of death

[26] Timothy P Hanna, Will D King, Stephane Thibodeau, Matthew Jalink, Gregory A Paulin, Elizabeth Harvey-Jones, Dylan E O'Sullivan, Christopher M Booth, Richard Sullivan, Ajay Aggarwal. *Mortality due to cancer treatment delay: systematic review and meta-analysis*. https://www.bmj.com/content/371/bmj.m4087
[27] BREASTCANCER.ORG, Delaying Chemotherapy More Than 30 Days Linked to Worse Outcomes for Triple-Negative Breast Cancer. *Available at* https://www.breastcancer.org/research-news/chemo-delay-30-days-plus-worse-for-trip-neg#:~:text=Effect%20on%20survival,to%2060%20days%20after%20surgery
[28] "Although the benefit of chemotherapy is unclear in stage II colon cancer patients, delay in initiation of chemotherapy is associated with an incomplete chemotherapy course and poorer survival, especially cancer-specific survival." https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0107993
[29] THE JOURNAL OF URGENT CARE MEDICINE. *New Urgent Care Models Help Cancer Patients*. https://www.jucm.com/new-urgent-care-models-help-cancer-patients/
[30] *Id. See also* https://www.healthleadersmedia.com/clinical-care/cancer-urgent-care-clinics-slow-growth-er-utilization
[31] *Id.*
[32] Linear Accelerator, *available at* https://www.radiologyinfo.org/en/info/linac
[33] *Id.*
[34] NATIONAL CANCER INSTITUTE, Radiation Therapy to Treat Cancer. *Available at* https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy#:~:text=Radiation%20therapy%20(also%20called%20radiotherapy,your%20teeth%20or%20broken%20bones.
[35] *Id.*
[36] *Id.*
[37] NATIONAL CANCER INSTITUTE, Brachytherapy to Treat Cancer. *Available at* https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy/brachytherapy?redirect=true
[38] MAYO CLINIC, Cancer Treatment. *Available at* https://www.mayoclinic.org/tests-procedures/cancer-treatment/about/pac-20393344
[39] AMERICAN HEART ASSOCIATION, What is Cardiovascular Disease? *Available at*

in Massachusetts.[40] Coronary artery disease, caused by plaque buildup in the walls of the arteries, is the most common form of heart disease.[41] Over time, the arteries narrow as a result of plaque buildup, which will partially or fully block the blood flow.[42] Coronary artery disease is the main cause of a heart attack, but often goes undiagnosed until the individual experiences a heart attack.[43], and requires medical attention.[44] While some individuals diagnosed with cardiovascular disease are able to receive emergency treatment without an inpatient admission, some patients will require surgical intervention to clear the blocked artery and resume blood flow. One such surgery is coronary bypass surgery which redirects blood around the blocked artery.[45] During the procedure, a healthy blood vessel is taken from elsewhere in body and connected above and below the blocked artery.[46] In order to perform the procedure, the chest cavity must be opened, and accordingly, coronary bypass surgery is considered open-heart surgery and requires inpatient care while the individual recovers immediately following the procedure.[47] Due to the prevalence of heart disease in the U.S, high-quality inpatient cardiovascular services are an important component of hospital care.

PROXIMITY OF CARE

In addition to timely access to care, there is evidence that proximity to care is associated to with care utilization and health outcomes. In a review of a number of studies, further distances between a patient's home and their healthcare facilities demonstrated poorer health outcomes.[48] Moreover, there is evidence of reduced rates of radiation therapy for patients living farther away from radiation facilities than those living nearby.[49] Similarly, greater travel time has been associated with delayed diagnosis.[50] In addition to poorer health outcomes related to the patient's specific diagnosis, there is evidence that the time spent traveling to receive health care services, as well as costs associated to traveling, physically impacts individuals and is a source of additional stress.[51] Proximity to care and minimal travel time to health care facilities become increasingly important factors for access to care as adults age because of potential barriers to transportation for those adults who no longer drive or do not have a support system for reliable transportation to appointments.[52] As discussed above, infusion and radiation therapies are often performed over a period of time and will require the patient to return for treatment multiple times a week, month, or over longer periods of time. Therefore, access to care within the patient's community is necessary for improving treatment completion rates. In conclusion, health outcomes are better when individuals live close to the health care facilities that can address the full spectrum of health care needs.

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https://www.heart.org/en/health-topics/consumer-healthcare/what-is-cardiovascular-disease

[40] CDC, Leading Causes of Death. *Available at* https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm ; https://www.heart.org/-/media/files/about-us/policy-research/fact-sheets/quality-systems-of-care/quality-systems-of-care-massachusetts.pdf?la=en

[41] CDC, Coronary Artery Disease (CAD). *Available at* https://www.cdc.gov/heartdisease/coronary_ad.htm (last reviewed Feb. 14, 2022).

[42] *Id.*

[43] *Id.*

[44] MAYO CLINIC. Coronary Health Disease. https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/syc-20350613#:~:text=Coronary%20artery%20disease%2C%20also%20called,are%20almost%20always%20to%20blame.

[45] MAYO CLINIC. Coronary Bypass Surgery. https://www.mayoclinic.org/tests-procedures/coronary-bypass-surgery/about/pac-20384589#:~:text=Because%20coronary%20bypass%20surgery%20is,An%20irregular%20heart%20rhythm

[46] *Id.*

[47] *Id.*

[48] Mattson, Jeremy. Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas. *Available at* https://www.ugpti.org/resources/reports/downloads/dp-236.pdf

[49] Rocque GB, Williams CP, Miller HD, et al. Impact of Travel Time on Health Care Costs and Resource Use by Phase of Care for Older Patients With Cancer. J Clin Oncol. 2019;37(22):1935-1945. doi:10.1200/JCO.19.00175. *Available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6804875/

[50] *Id.*

[51] Winters, Charlene A., Shirley A. Cudney, Therese Sullivan, and Alta Thuesen. "The Rural Context and Women's Self-Management of Chronic Health Conditions." *Chronic Illness* 2 (2006): 273-289.

[52] *Supra note 48.*

F.1.b.ii **Public Health Value /Outcome-Oriented:**

Describe the impact of the Proposed Project and how the Applicant will assess such impact. Provide projections demonstrating how the Proposed Project will improve health outcomes, quality of life, or health equity. Only measures that can be tracked and reported over time should be utilized.

The Applicant anticipates that the Proposed Project will provide patients with improved health outcomes and quality of life through expanded access to outpatient cancer services in improved facilities. To assess the impact of the Proposed Project, the Applicant developed the following projections for quality indicators that will measure patient satisfaction and quality of care for the services to be provided in the proposed facility.

OUTPATIENT MEDICAL ONCOLOGY QUALITY MEASURES

1. **Patient Satisfaction**: Patients that are satisfied with their care are more likely to seek additional treatment when necessary. CCH staff will review patient satisfaction scores from the Hospital Consumer Assessment of Healthcare Providers and Systems related to overall patient satisfaction
    a. *Measure*: Staff will review responses pertaining to registration, wait times, changing room privacy, facility navigation, staff communication, and personal needs. Response options include Very Poor, Poor, Fair, Good, and Very Good.
    b. *Baseline:* 69.78% of patients responded with the highest score ("Top Box Score")
    c. *Projections:* Year 1: 71% Year 2: 73% Year 3: 74%
    d. *Monitoring:* Results will be reviewed annually by oncology leadership.
2. **Hospital Readmissions:** This measure will monitor the rate of patients who receive non-routine inpatient care at the Hospital within 30 days of chemotherapy.
    a. *Measure:* The percent of Medical Oncology patients who are admitted within 30 days of receiving chemotherapy (number of patients admitted/number of chemotherapy patients within last 30 days). This is a rolling measure.
    b. *Baseline:* 5.6%
    c. *Projections:* Year 1: ≤5.0% Year 2: ≤4.5% Year 3: ≤3.9%
    d. *Monitoring*: Results will be reviewed annually by oncology leadership.

RADIATION ONCOLOGY QUALITY MEASURES

3. **Patient Satisfaction**: Patients that are satisfied with their care are more likely to seek additional treatment when necessary. CCH staff will review patient satisfaction scores from the Hospital Consumer Assessment of Healthcare Providers and Systems related to overall patient satisfaction
    a. *Measure*: Staff will review responses pertaining to registration, wait times, changing room privacy, facility navigation, staff communication, and personal needs. Response options include Very Poor, Poor, Fair, Good, and Very Good.
    b. *Baseline:* 81.12% of patients responded with the highest score ("Top Box Score")
    c. *Projections:* Year 1: ≥82% Year 2: ≥83.5% Year 3: ≥85%
    d. *Monitoring*: Results will be reviewed annually by oncology leadership.

INPATIENT CARDIAC MEDICAL-SURGICAL QUALITY MEASURES[53]

4. **Patient Satisfaction**: Patients that are satisfied with their care are more likely to seek additional treatment when necessary. CCH staff will review patient satisfaction scores from the Hospital Consumer Assessment of Healthcare Providers and Systems specific to the hospital environment.
    a. *Measure*: Staff will review responses to "During this hospital stay, how often was the area around your room kept quiet at night?". Response options include: Never, Sometimes, Usually, and Always
    b. *Baseline:* 60% of patients responded with the highest score ("Top Box Score").
    c. *Projections:* Year 1: 62% Year 2: 64% Year 3: 65%
    d. *Monitoring:* Scores are reviewed quarterly.
5. **Fall Prevention:** This measure will monitor the rate of patient falls resulting in injury.
    a. *Measure:* The number of patient falls with injury per 1000 acute patient days.
    b. *Baseline:* 0.29
    c. *Projections:* Year 1: 0 Year 2: 0 Year 3: 0
    d. *Monitoring:* The Department of Nursing will review falls data on a monthly basis.
6. **Hospital Readmissions:** This measure will monitor the rate of patients who are re-admitted to the Hospital within 30 days of discharge.
    a. *Measure*: The number of re-admissions/the number of discharges within a 30-day period. This is a rolling measure.
    b. *Baseline*: 0.77[54]
    c. *Projections:* Year 1: ≤1 Year 2: ≤1 Year 3: ≤1
    d. *Monitoring*: Scores are reviewed quarterly.

F1.b.iii **Public Health Value /Health Equity-Focused:**

For Proposed Projects addressing health inequities identified within the Applicant's description of the Proposed Project's needbase, please justify how the Proposed Project will reduce the health inequity, including the operational components (e.g. culturally competent staffing). For Proposed Projects not specifically addressing a health disparity or inequity, please provide information about specific actions the Applicant is and will take to ensure equal access to the health benefits created by the Proposed Project and how these actions will promote health equity.

Through the Proposed Project, the Applicant will improve access to comprehensive, high-quality inpatient cardiac care and outpatient cancer services for the Hospital's Patient Panel. The Applicant values diversity, equity, and inclusion, and is committed to developing systems and an organizational culture that fosters an inclusive and equitable environment for patients, visitors, and staff. The Applicant does not discriminate based on ability to pay or payer source, physical ability, sensory or speech limitations, or religious, spiritual and cultural beliefs. The following measures are two examples of how the Applicant promotes health equity at the Hospital.

[53] These projections are limited to the care to be provided in the proposed cardiac medical-surgical inpatient unit.
[54] CY2020

A. Ensuring Language Accessibility

The Applicant is committed to clearly and thoroughly communicating with all patients and their families. Trained medical interpreters are available in-person, by phone, and by video 24 hours per day, 7 days per week to provide accurate and complete interpretation services. American Sign Language interpreter services are also available in-person and through video. Admitted patients may request a portable videophone or a TTY to be delivered to their room. All interpreter services are provided free of charge.

B. Promoting Cultural Competency

A culturally competent workforce is necessary to ensuring the delivery of care is tailored to meet patients' social, cultural and linguistic needs. To that end, Cape Cod Healthcare requires all new hires to complete a cultural competency training upon hire. The training is currently offered virtually via the System's Learning Management System, HealthStream. In addition, the Applicant provides in-service trainings on cultural competence to its clinical departments, including the oncology, rehabilitation, behavioral health, psychiatric, and emergency departments. The Applicant is committed to ensuring its staff are trained in cultural competency in order to contribute to the reduction of racial and ethnic disparities in healthcare.

F1.b.iv Provide additional information to demonstrate that the Proposed Project will result in improved health outcomes and quality of life of the Applicant's existing Patient Panel, while providing reasonable assurances of health equity.

The Proposed Project will improve public health outcomes by providing care in facilities that facilitate quality care. Through expanded access to oncology services, the Hospital will be able to provide services to more individuals as well as reduce wait times as the older age cohort of its Patient Panel grows. As further described in Section F1.b.i, delaying chemotherapy by as little as four weeks can reduce an individual's life expectancy. To that end, the Proposed Project seeks to increase timely access to oncology care for the Patient Panel close to home thereby improving health outcomes. Similarly, public health outcomes will be improved for the Hospital's inpatient cardiac patients through accommodations for in-room family support and sleeping as well as patient control over sound and light levels, all of which will promote rest and recovery, and in turn, improve health outcomes.

Additionally, the Proposed Project will improve quality of life by constructing a facility designed to provide patient-centered care, including treatment space that can accommodate family and visitors as well as additional space for patient and family education. Involving family in a patient's hospital care has shown to reduce stress and promote psychological well-being because of the emotional and physical support that family can provide, including decision-making, daily activities, and social connectivity. Also contributing to quality of life, the Proposed Project will expand on-site access to integrative services for cancer patients, allowing patients to receive care beyond their medical appointments in the same location. This co-location of integrative services in the proposed cancer center will make it possible for patients to enjoy more robust wellness services without requiring the patient to drive to multiple locations. Furthermore, both the proposed cancer center and inpatient cardiac unit will provide for co-located clinical staff space to enable and promote clinical collaboration. Through these design features, the Proposed Project will provide an enhanced patient care experience, which the Applicant anticipates will improve patient satisfaction as well as health outcomes.

F1.c Provide evidence that the Proposed Project will operate efficiently and effectively by furthering and improving continuity and coordination of care for the Applicant's Patient Panel, including, how the Proposed Project will create or ensure appropriate linkages to patients' primary care services.

One of the central features of the Proposed Project is the co-location of comprehensive cancer services. By re-locating the Hospital's outpatient cancer services, patients will be able to receive all of their care in one location. This co-location of services will also enhance clinical coordination and collaboration. Moreover, the proposed cancer center will provide space for integrative wellness services to ensure patients have access to a broad range of services to address their physical and emotional well-being. The Applicant anticipates that the co-location of medical and integrative services will improve coordination of care and promote continuity of care. Furthermore, because such services will be provided by the Hospital,

medical records will be accessible to the patient's care team, including their primary care provider ("PCP"). Similarly, the Hospital will facilitate medical record sharing for inpatient cardiac patients between the Hospital and the patient's PCP, as well as facilitating discharge planning in coordination with the patient's PCP and cardiologist.

F1.d **Provide evidence of consultation, both prior to and after the Filing Date, with all Government Agencies with relevant licensure, certification, or other regulatory oversight of the Applicant or the Proposed Project.**

As a broad range of input is valuable in the planning of a project, the Applicant consulted with individuals at various regulatory agencies regarding the Proposed Projects. The following individuals were consulted regarding this Project:

- Lara Szent-Gyorgyi, Director, Determination of Need Program, Department of Public Health
- Jennica Allen, Office of Community Health Planning and Engagement, Department of Public Health
- Elizabeth Maffei, Office of Community Health Planning and Engagement, Department of Public Health
- MassHealth
- Health Policy Commission
- Center for Health Information and Analysis
- The Centers for Medicare & Medicaid Services

F1.e.i **<u>Process for Determining Need/Evidence of Community Engagement:</u>**
For assistance in responding to this portion of the Application, Applicant is encouraged to review *Community Engagement Standards for Community Health Planning Guideline.* With respect to the existing Patient Panel, please describe the process through which Applicant determined the need for the Proposed Project.

The Applicant proposes to construct a new facility to provide expanded capacity and more comprehensive care based upon the growing demand for cancer and cardiac services by Cape Cod Hospital's Patient Panel, the aged infrastructure of existing buildings, and the need for a more patient-centered environment. In order to ensure the new facility was designed with patient outcomes at the center, CCHC engaged a human-centered design firm to facilitate a number of exercises including stakeholder interviews, patient and caregiver interviews, participatory workshops with staff, patients and volunteers. This input was collected and resulted in a set of Experience Principles which in turn informed the design process. Some of the resulting Experience Principles include:

1. Foster a sense of control and empowerment.
2. Meet people where they are (physically, cognitively, emotionally, and procedurally).
3. Provide for both privacy and connectedness.
4. Ever-present support.
5. Empower staff to collaborate and take ownership of the experience.
6. Care for the whole patient
7. Maintain flexibility to address shifting needs.

These Principles helped inform the design process for the new facility, including aesthetics, integrative wellness services, and clinical workspace.

In addition, the Applicant sought to inform the Hospital's Patient Panel on the need for the Proposed Project as well as solicit feedback on the design, layout, and experience of the Proposed Project. To that end, the Applicant took the following actions:

- Presented to the Hospital's Community Health Committee on January 26, 2022.
- Presented to the Hospital's Neighbors on January 31, 2022
- Presented to the Hospital's Patient and Family Advisory Council on February 10, 2022.

First, the Proposed Project was presented the Hospital's Community Health Committee on January 26, 2022, with 19 members of the Committee and five (5) Hospital representatives. Next, the Hospital hosted

an open forum for neighbors and community members on January 31, 2022. This forum was attended by four (4) neighbors. Lastly, the Hospital spoke with five (5) members of its Patient and Family Advisory Council on February 10, 2022. During each meeting, Hospital representatives spoke about the need for the Proposed Project, design considerations, and how the Proposed Project is necessary for the Hospital's provision of high-quality, patient-centered care to the Hospital's Patient Panel. Feedback was overwhelming positive, with a clear appreciation for the consideration paid to the patient experience, including patient privacy, centralization of services, and the inclusion of family and visitors in the facility's layout.

F1.e.ii **Please provide evidence of sound Community Engagement and consultation throughout the development of the Proposed Project. A successful Applicant will, at a minimum, describe the process whereby the "Public Health Value" of the Proposed Project was considered, and will describe the Community Engagement process as it occurred and is occurring currently in, at least, the following contexts: Identification of Patient Panel Need; Design/selection of DoN Project in response to "Patient Panel" need; and Linking the Proposed Project to "Public Health Value".**

For materials related to the activities described in Factor F1.e.i, please refer to Appendix 3, which includes meeting agendas and presentations.

Factor 2: Health Priorities

Addresses the impact of the Proposed Project on health more broadly (that is, beyond the Patient Panel) requiring that the Applicant demonstrate that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

F2.a. **Cost Containment:**

Using objective data, please describe, for each new or expanded service, how the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment.

The Proposed Project will meaningfully contribute to The Commonwealth's goals for cost containment by providing expanded access to comprehensive cancer services. Expanded access will contribute to cost containment goals in three ways. First, by increasing access to medical appointments and chemotherapy, the Proposed Project will reduce delays to beginning treatment, when treatment is most likely to be successful and less costly. Second, the Proposed Project's cancer center will expand access to same-day acute appointments which the Applicant anticipates will reduce emergency room utilization and inpatient admissions. Lastly, the proposed cancer center will offer wrap-around services, including rehabilitation, medical nutrition, and social work services, that will provide additional support to patients and families during treatment and through survivorship. In conjunction with expanded access to physician and infusion services, the Proposed Project believes that more patients will be able to receive care on Cape Cod, avoiding more costly care in Boston.

Additional cost savings will be realized through improved recovery outcomes as a result of the new cardiac medical-surgical unit. The proposed unit is designed to maximize patient well-being beyond the provision of direct care in order to improve health outcomes and promote recovery. Specifically, the new rooms will significantly reduce the amount of noise patients hear through both internal and external mechanisms. Additionally, patients will be provided full control over the lighting in their rooms. Collectively these efforts have been shown to reduce sleep disturbances and promote more restful sleep. Without such interventions, inpatients frequently experience poor sleep, which can contribute to a weakened immune system and may adversely affect cardiovascular and respiratory functions.[55] To that end, a hospital's ability to ensure a tranquil environment may contribute to better health outcomes and lower hospital costs overall. Lastly, as further discussed below in Section F2.c., the Proposed Project will result in additional case management services, in turn improving the facilitation and coordinator of discharge planning and post-discharge care.

[55] Getting a better night's sleep in the hospital to improve healing. Available at https://www.uclahealth.org/vitalsigns/getting-a-better-night-s-sleep-in-the-hospital-to-improve-healing

As a result of improved coordination post-discharge, the Hospital anticipates additional case management capacity will contribute to cost containment in The Commonwealth.

F2.b. **Public Health Outcomes:**

Describe, as relevant, for each new or expanded service, how the Proposed Project will improve public health outcomes.

As noted above, the Proposed Project will improve public health outcomes by expanding access to cancer services, allowing Cape Cod Hospital to provide more timely access to services, including same-day appointments for patients seeking urgent care. Same-day appointments have been shown to reduce emergency department utilization and has the potential to improve health outcomes.[56] Additionally, the proposed cancer center will include dedicated space to communicate and educate patients and families which will promote patient education, further contributing to treatment adherence and improved health outcomes. Health outcomes will also be improved through the relocation of cardiac medical-surgical beds as a result of noise reduction efforts that will improve sleep and patient well-being, in turn, promoting recovery and immunity.

F2.c. **Delivery System Transformation:**

Because the integration of social services and community-based expertise is central to goal of delivery system transformation, discuss how the needs of their patient panel have been assessed and linkages to social services organizations have been created and how the social determinants of health have been incorporated into care planning.

One of the core elements of the proposed cancer center is to build upon the Hospital's existing integrated care model. Though the Hospital currently offers integrative medicine, the current oncology spaces do not have room to adequately provide comprehensive wrap-around services. In addition to co-located pharmacy and laboratory services, the new center will include a larger footprint for integrative wellness services. The Hospital anticipates that it will be able to provide additional services as a result of the space provided by the Proposed Project. Integrative wellness care allows the Hospital to address patients' wholistic needs beyond medical oncology.

Furthermore, the cardiac unit will include a dedicated space with the necessary technology infrastructure for discharge planning and care coordination which will facilitate more effective collaboration between the inpatient care team, the ambulatory care team and the ACO case management team. This model will promote continuity of care and essential follow up support and education for the first 30 days post hospital discharge. The space and infrastructure will also enhance the Applicant's efforts toward health equity by increasing the capacity of CCHC ACO's Navigators to address any social determinants of health that are positively screened during discharge planning. If a need is identified, the ACO Navigator will coordinate appropriate follow-up between the patient and available community resources, including assistance with paperwork and documentation as necessary.

Factor 5: Relative Merit

F5.a.i **Describe the process of analysis and the conclusion that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs as those have been identified by the Applicant pursuant to 105 CMR 100.210(A)(1). When conducting this evaluation and articulating the relative merit determination, Applicant 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.**

Proposal: The Proposed Project is for the construction of a new building on the Hospital's main campus in order to relocate certain medical-surgical beds and provided expanded cancer services in one location.

[56] Impact of a Dedicated Cancer Urgent Care Center on Acute Care Utilization. https://ascopubs.org/doi/abs/10.1200/OP.21.00183

Quality: The Proposed Project is superior because the new building will provide sufficient space for each of the relocated services to be in compliance with current FGI Guidelines, allowing for an improved patient experience and care delivery

Efficiency: The Proposed Project is similarly the most efficient proposal because the new space will be constructed in accordance with the spatial requirements needed for patient care, privacy, infection control measures, and radiation equipment.

Capital Expense: $137,048,632

Operating Costs: $4,898,000

Alternative Proposal: An alternative to the Proposed Project would be to renovate the existing spaces.

Alternative Quality: This alternative does not provide equivalent quality to the Proposed Project due to the space constraints noted above and in Section F1.a.ii.. As a result, patient care services would be reduced (fewer beds and fewer infusion bays) in order to meet current hospital design requirements.

Alternative Efficiency: This alternative is not an efficient option because of the extensive improvements needed to modernize the 20- and 40-year-old spaces and meet current FGI standards.

Alternative Capital Expenses: Due to the diminished quality and efficiency outcomes described above, a budget was not developed for this alternative.

Alternative Operating Costs: Due to the diminished quality and efficiency outcomes described above, a budget was not developed for this alternative.

APPENDIX 3

FACTOR 1 EXHIBITS
(COMMUNITY ENGAGEMENT PRESENTATIONS)

Cape Cod Hospital Cancer and Cardiology Expansion

Community Health Committee

January 26, 2022

CAPE COD HEALTHCARE

Caring for Our Community

- Our mission is to coordinate and deliver the highest quality accessible health services, which enhance the health of all Cape Cod residents and visitors.
- As a regional medical center, Cape Cod Hospital provides inpatient, outpatient and emergency care for approximately 214,000 year-round residents of Barnstable County, as well as patients from surrounding local areas and numerous national and international visitors.
- The unique demographics of the Cape present challenges to our healthcare system to provide access and ensure capacity for those needing medical care.

Caring for our Community

It is our strategic goal to provide a full array of comprehensive medical services to the community. This allows patients to receive high quality medical care close to home without incurring higher costs and the inconvenience of travel to Boston.

However, the current facilities that house our cardiovascular, oncology and some of the medical/surgical units need to be updated, improved and expanded. As the community has embraced enhanced programs, we have outgrown the space in the existing Hospital. Patient rooms, space for diagnostic equipment, storage, physician and nurse workspace are currently limited. Over the past decade the hospital has renovated areas where possible to ensure compliance with current standards and address growth in patient volumes. However, the cardiovascular, oncology and surgical suites are essentially “landlocked” in the current configuration. The creation of the proposed new patient floors and the new cancer center will address our current and future needs. Further, it will allow us to redefine the care we deliver at Cape Cod Hospital.

Caring for Community - Oncology

The demand for oncology services on Cape Cod is increasing, but the existing oncology space at CCH has constrained program development.

The new Cancer Center will incorporate patient-centered design to increase capacity for medical oncology treatment (chemotherapy) from 19 patient bays to 36 patient bays, with potential to expand further, if needed. Proper space for practitioners, as well as pharmacy, laboratory, patient education and family support areas has been incorporated into the design. Our radiation therapy program will be upgraded with a new linear accelerator, updated CT simulation equipment and dedicated brachytherapy equipment.

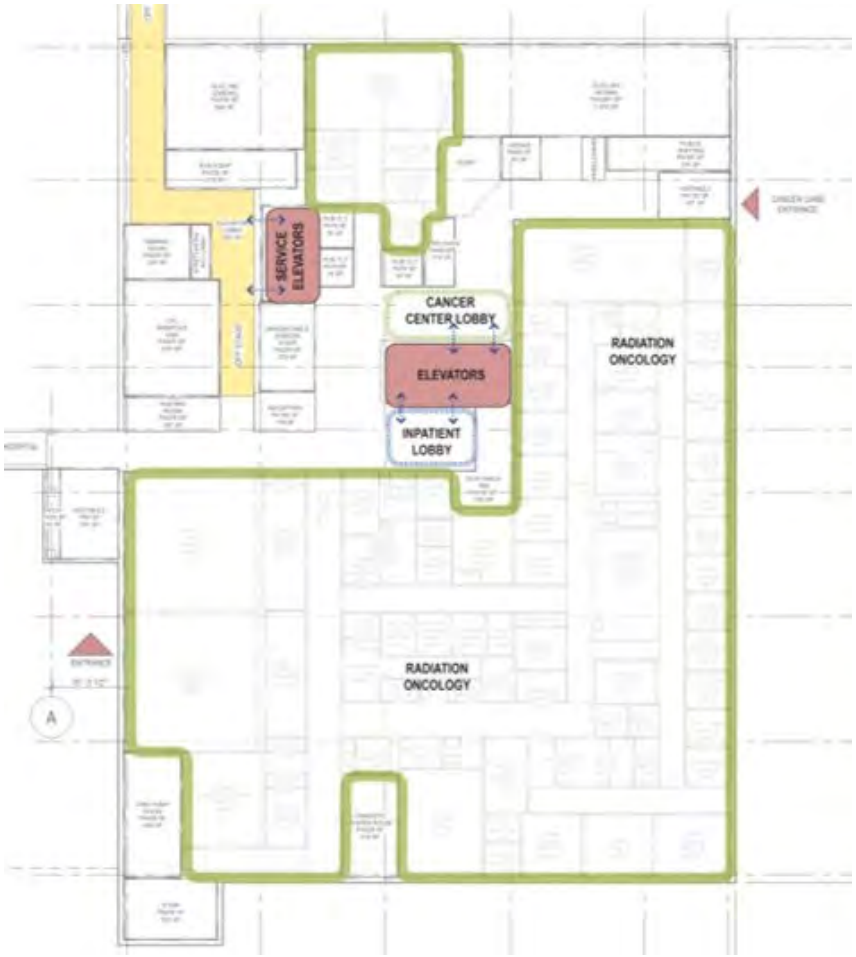
Caring for our Community – Medical Surgical

The 32-bed proposed CV Medical/Surgical Unit for the new addition will replace the existing 12-bed and 24-bed CV med/surg units housed in a 1950's building on the Cape Cod Hospital campus.

The new unit will transform the way medical care is delivered at Cape Cod Hospital and will recognize the role of the family as a partnership to support patient well-being. Focus on patient and family experience and staff efficiency are the key drivers in the design. The new units will exceed the minimum 2018 FGI Guidelines, enable clinical teams to collaborate more effectively, and provide space for emerging technologies, as well as amenities for families on the units and within the patient room.

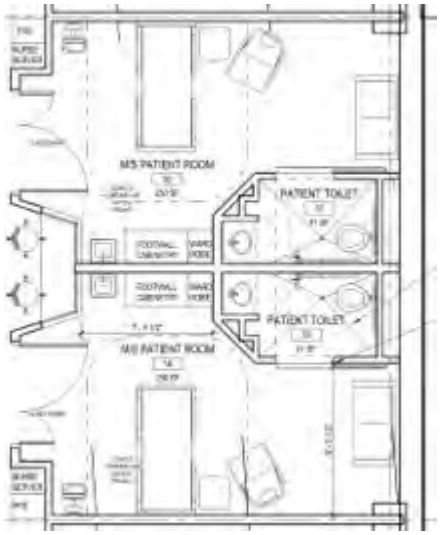
Connection to the hospital

First Floor Radiation Therapy



Second Floor Medical Oncology

3rd Floor Med Surg



Northwest View

Southwest View

Southeast view

Cross section

Looking northeast from Lews Bay Rd

Site Plan

Interiors-Front Porch

Infusion bay

Radiation Therapy Check in

Oncology nurse station

Cancer Care Reception

CAPE COD HEALTHCARE

Dear Neighbor,

I am writing to invite you to an informational neighborhood meeting to share with you Cape Cod Hospital's proposed plans for an addition to the southwest corner of the Hospital consisting of four patient floors and a rooftop mechanical penthouse. This addition will include a new cancer center (2 floors, first and second floor), 32 cardiovascular medical/surgical beds (third floor), and a fourth floor which will initially be shell space available for future beds or clinical space. Numerous site improvements are also incorporated into the design, including: parking, storm-water management, and landscaping.

The meeting will be held remotely via zoom, as follows:

DATE: MONDAY, JANUARY 31ST

TIME: 6PM EST

REMOTE LINK:
https://nutter.zoom.us/j/87897453689?pwd=eURVcDByMWNob3RoZVhLTzN5RUMvUT09

Meeting ID: 878 9745 3689
Passcode: 431658

Dial by your location
+1 312 626 6799 US (Chicago)
+1 646 876 9923 US (New York)
+1 301 715 8592 US (Washington DC)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 408 638 0968 US (San Jose)
Meeting ID: 878 9745 3689
Passcode: 431658

In the event that you are unable to attend the meeting, but would like more information regarding the project, please do not hesitate to contact me at **mbachstein@capecodhealth.org** and I would be happy to set up another time to discuss the plans.

And although not necessary, if you plan to attend and would like me to send you an Outlook calendar appointment with the remote link, please email me at mbachstein@capecodhealth.org, with a copy to: dmamlock@CapeCodHealth.org and we will email you a calendar reminder with the remote participating link.

Thank you very much. We welcome the opportunity to meet with our neighbors.

Sincerely yours,

Michael Bachstein

Vice President Facilities Management

Cape Cod Hospital Cancer and Cardiology Expansion

Patient Family Advisory Council

February 10, 2022

CAPE COD HEALTHCARE

Caring for our Community

Strategic goal: To provide a full array of comprehensive medical services to the community.

- Patients receive quality medical care close to home without incurring higher costs and the inconvenience of travel to Boston.

Existing Constraints Include:

- The current cardiovascular, oncology and some of the medical/surgical units need to be updated, improved and expanded.
- Patient rooms, space for diagnostic equipment, storage, physician and nurse workspace are currently limited.
- Over the past decade the hospital has renovated areas where possible to ensure compliance with current standards and address growth in patient volumes.
- However, the cardiovascular, oncology and surgical suites are essentially “landlocked” in the current configuration.

The creation of the proposed new patient floors and the new cancer center will address our current and future needs. Further, it will allow us to redefine the care we deliver at Cape Cod Hospital.

Caring for Community – Cancer & Cardiology

1. New Oncology / Cancer Center

- ✓ Demand for oncology services is increasing, but existing oncology space has constrained program development.
- ✓ New center has a patient-centered design to increase capacity from 19 to 36 patient bays with potential to expand.
- ✓ Proper space for practitioners, pharmacy, laboratory, patient education & family support areas.
- ✓ Radiation therapy upgraded with new linear accelerator, updated CT simulation equipment & dedicated brachytherapy equipment.

2. Cardiovascular Medical / Surgical Unit

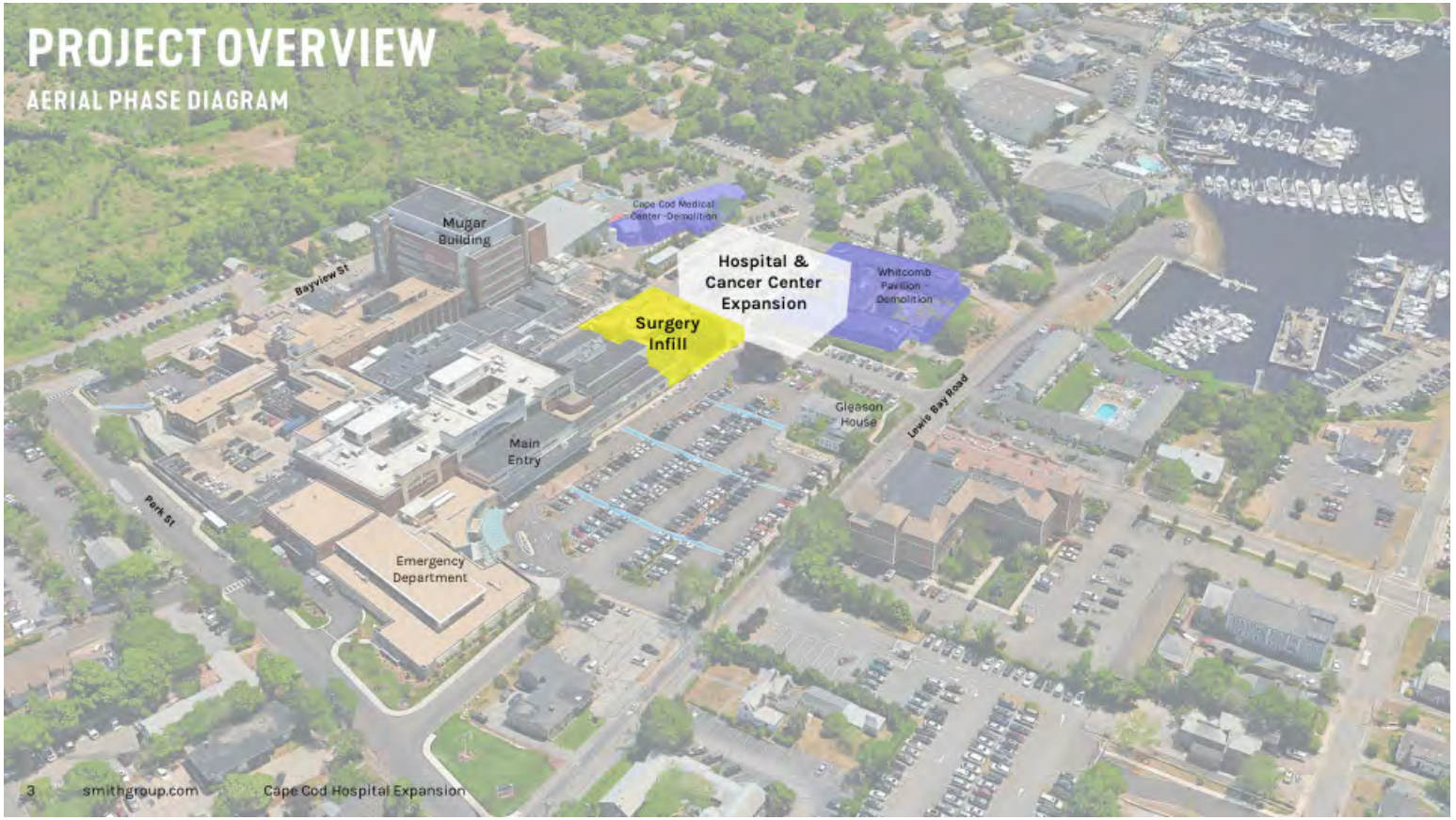
- ✓ Proposed 32-bed CV Medical/Surgical unit to replace existing 12-bed and 24-bed units housed in 1950's portion of hospital.
- ✓ New unit will transform delivery of care at CCH and recognizes role of the family to support a patient's well-being.
- ✓ New units exceed minimum guidelines, enable better clinical team collaboration, provide space for new technologies, and provide amenities to families.

Caring for our Community – Medical Surgical

The 32-bed proposed CV Medical/Surgical Unit for the new addition will replace the existing 12-bed and 24-bed CV med/surg units housed in a 1950's building on the Cape Cod Hospital campus.

The new unit will transform the way medical care is delivered at Cape Cod Hospital and will recognize the role of the family as a partnership to support patient well-being. Focus on patient and family experience and staff efficiency are the key drivers in the design. The new units will exceed the minimum 2018 FGI Guidelines, enable clinical teams to collaborate more effectively, and provide space for emerging technologies, as well as amenities for families on the units and within the patient room.

Project Overview



Where we are now -Southwest View

Where we are now - Northwest View

Side by Side Statistics

CAPE COD HOSPITAL
PREVIOUS TOWER PROJECT COMPARISON TO CURRENT NEW EXPANSION DESIGN

PREVIOUS PROPOSED PROJECT DESIGN		CURRENT PROPOSED PROJECT DESIGN	
60,988 SF AREA OF GROSS FOOTPRINT		50,926 SF AREA OF GROSS FOOTPRINT	
122,542 SF AREA OF NEW BUILDING CONSTRUCTION		60,298 SF AREA OF NEW BUILDING CONSTRUCTION	
76,753 SF OF BUILDINGS DEMOLISHED		76,753 SF OF BUILDINGS DEMOLISHED	
22 NEW PARKING SPACES ADDED		59 NEW PARKING SPACES ADDED	
107.9' BUILDING HEIGHT *(MEAN GRADE TO TOP OF PENTHOUSE)*		91.3' BUILDING HEIGHT *(MEAN GRADE TO TOP OF PENTHOUSE)*	
199,295 SF 6 STORY TOWER		137,051 SF 4 STORIES PLUS MECHANICAL PENTHOUSE	
• 1ST FLOOR -LOBBY, RADIATION ONCOLOGY	38,745 SF	• 1ST FLOOR -LOBBY, RADIATION ONCOLOGY	30,986 SF
• 1St Floor-MUGAR CONNECTOR	8,465 SF	• 2ND FLOOR-MEDICAL ONCOLOGY	24,919 SF
• 2ND FLOOR-MEDICAL ONCOLOGY	26,797 SF	• 3RD -FLOOR-32 BED MED SURGE BEDS	26,303 SF
• 3RD- FLOOR ICU/CV-ICU 28 BEDS	28,008 SF	• 4TH - FLOOR-SHELL SPACE	26,303 SF
• 4TH-FLOOR-36 BED MED SURGE BEDS	28,008 SF	• PH MECHANICAL PENTHOUSE	8,600 SF
• 5TH - FLOOR-SHELL SPACE	28,008 SF		
• 6TH FLOOR-EDUCATION CENTER & MECHANICAL PENTHOUSE	22,648 SF		
• SURGICAL EXPANSION ADD 2 OR'S	18,616 SF	• SURGICAL EXPANSION GROUND FLOOR ADD 2 OR'S	19,940 SF

EXISTING INFORMATION

Existing parking Spaces prior to parking lot expansion 1396 spaces.

Existing Mugar Tower Building Height is 98.8' *(MEAN GRADE TO TOP OF DECORATIVE ROOF WALL)*

Design Driver

Context- campus arrival experience

Site Plan

Context- Cape beacons

BEACON TO THE COMMUNITY

BRAND EXPRESSION

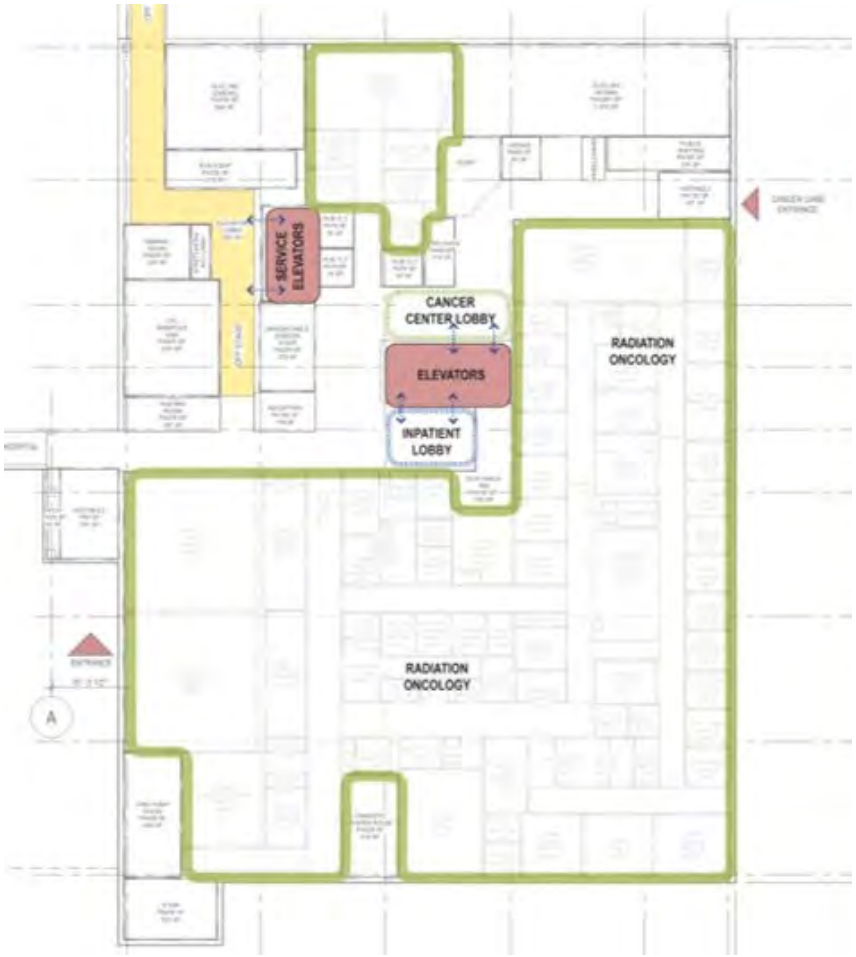




35 smithgroup.com Cape Cod Hospital Expansion

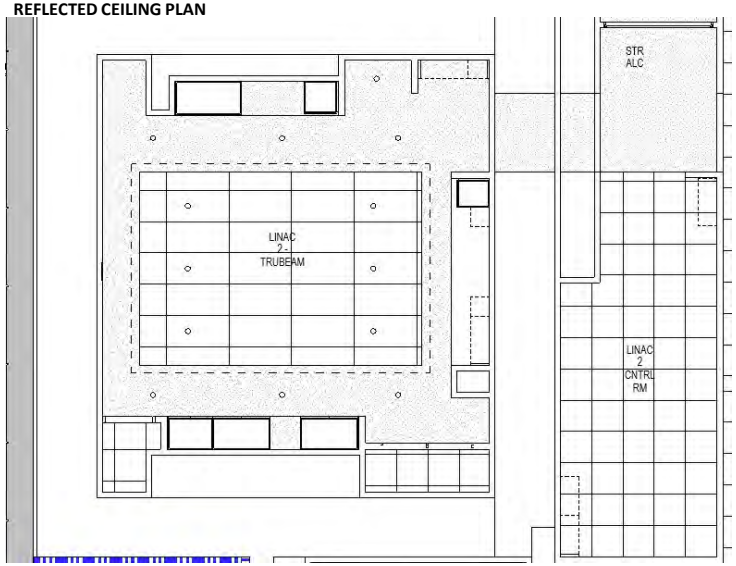
Connection to the hospital

First Floor Radiation Therapy

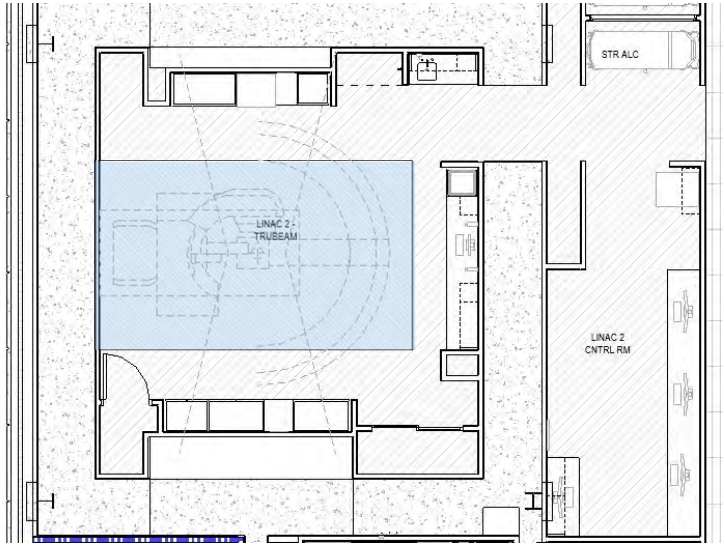


L1 RADIATION + IMAGING

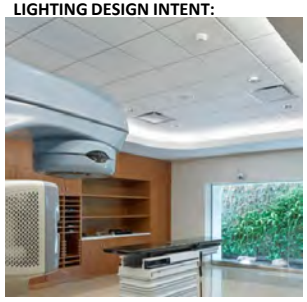
REFLECTED CEILING PLAN



FLOOR PLAN



LIGHTING DESIGN INTENT:



WALL FINISH:

MILLWORK FINISH:

FLOOR FINISH:

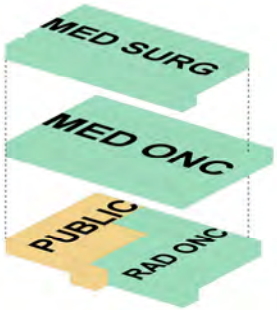
Radiation Therapy Check in

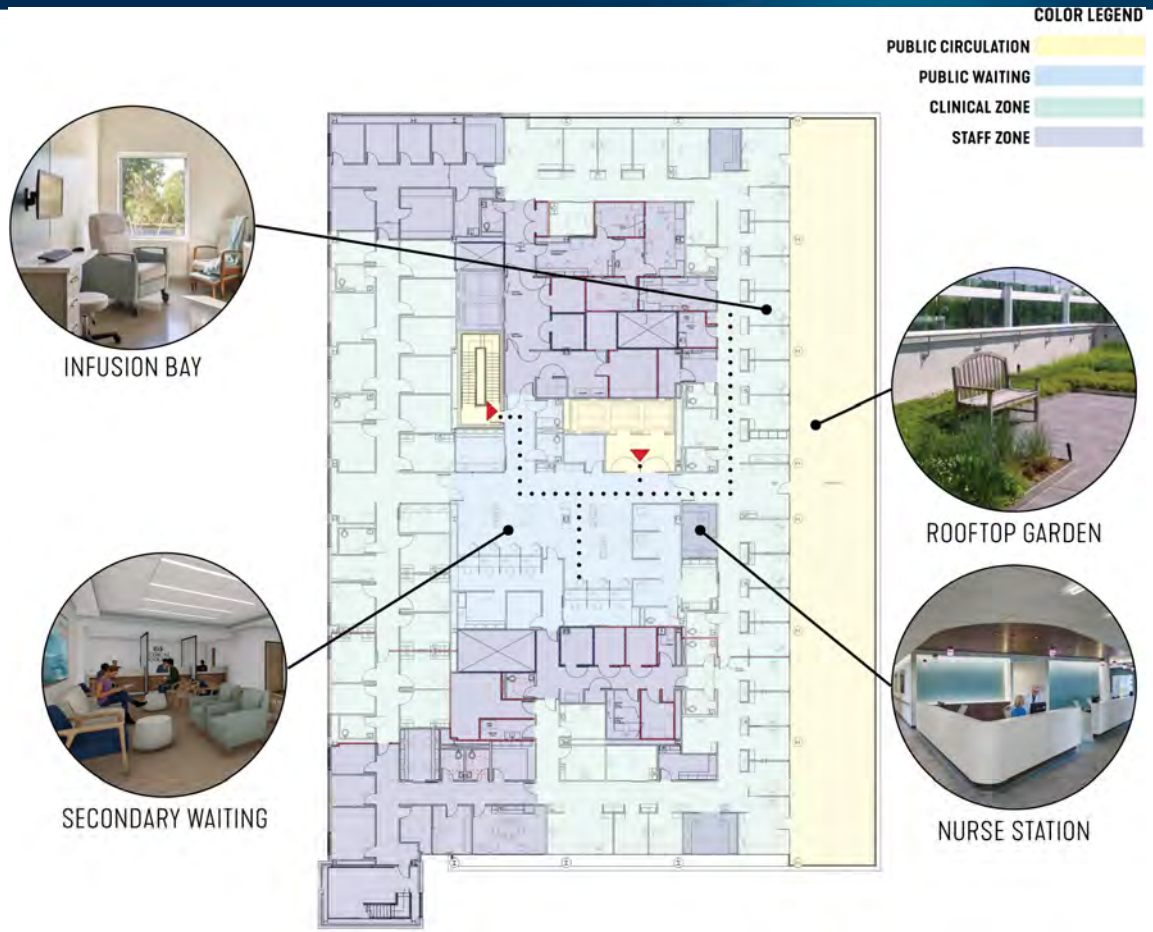
Cancer Care Reception

L1 RAD/ONC NURSE STATION

PATIENT JOURNEY

MOMENTS THAT MATTER



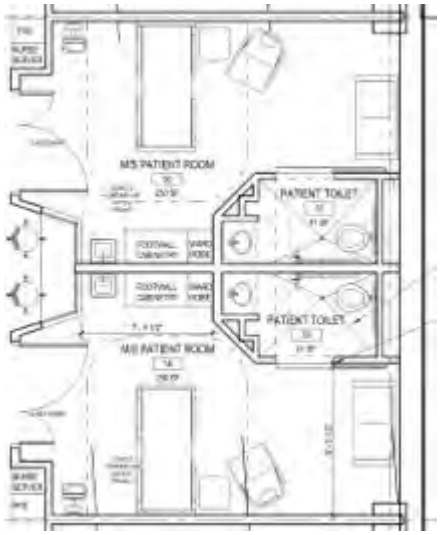


L2 LIVING ROOM

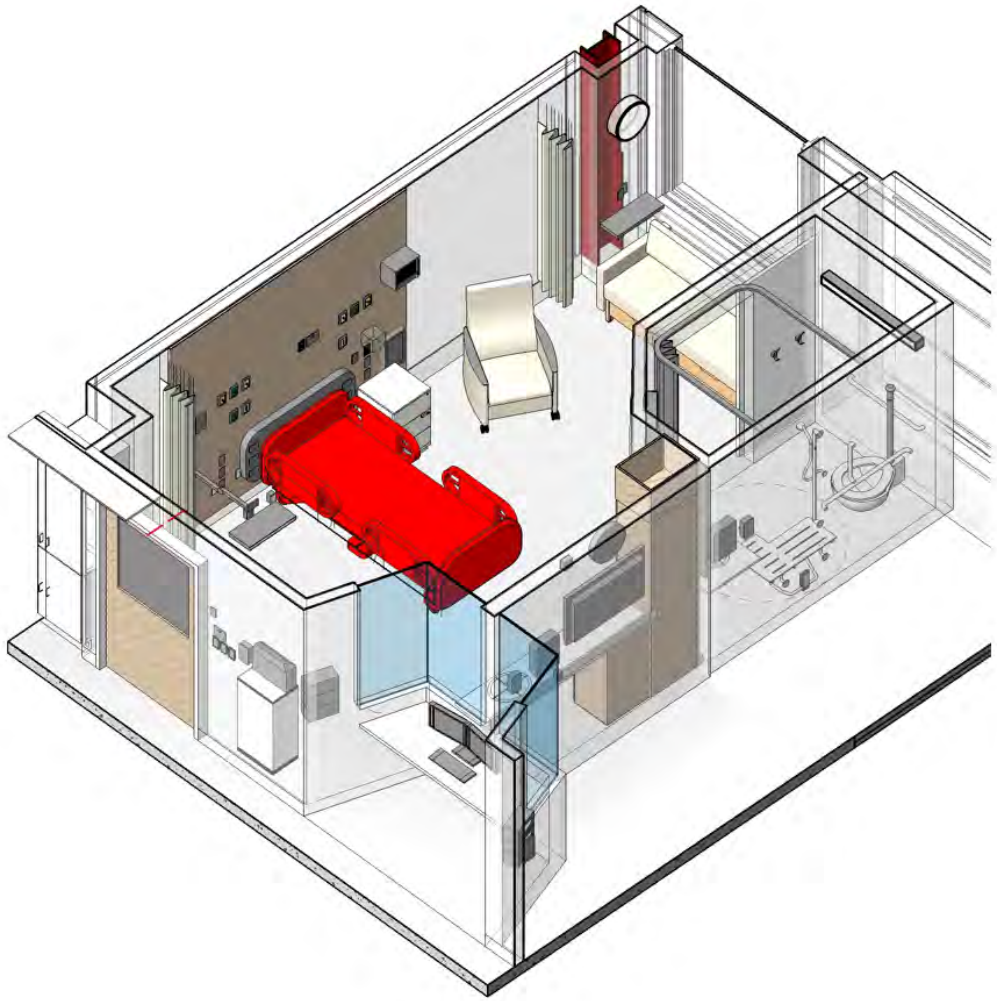
Infusion bay

Oncology nurse station

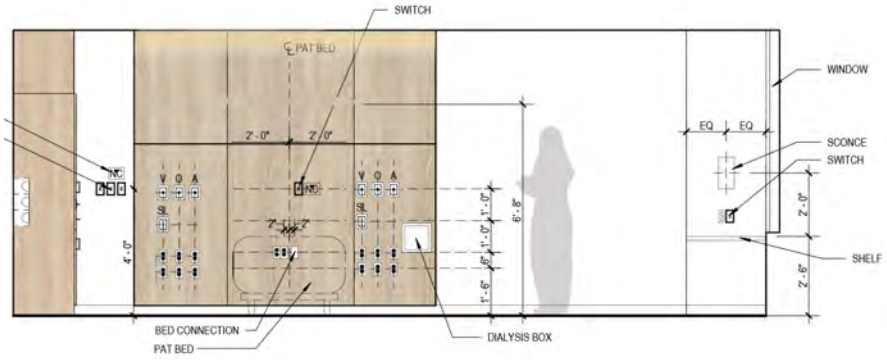
3rd Floor Med Surg



3rd Floor Med Surg – Patient Room

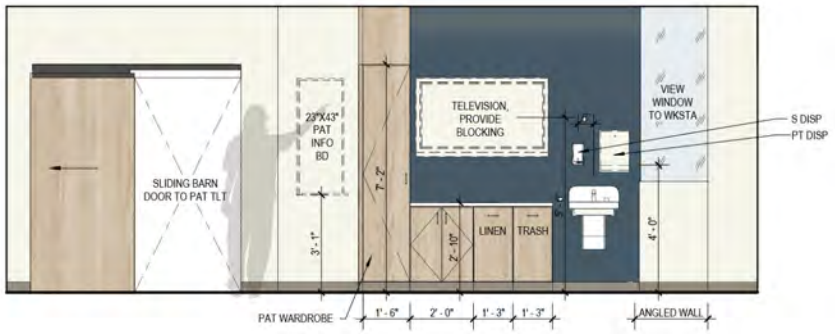


M/S HEADWALL + FOOTWALL

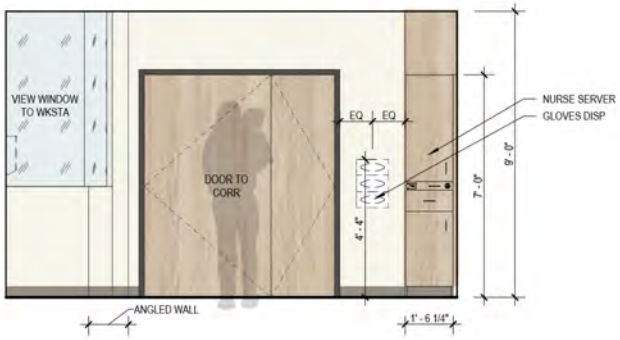


1 HEADWALL ELEVATION

2 PATIENT ROOM



3 PATIENT ROOM – FOOTWALL

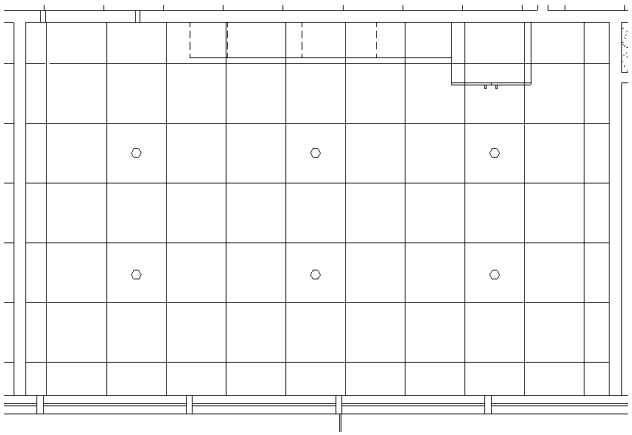


4 PATIENT ROOM

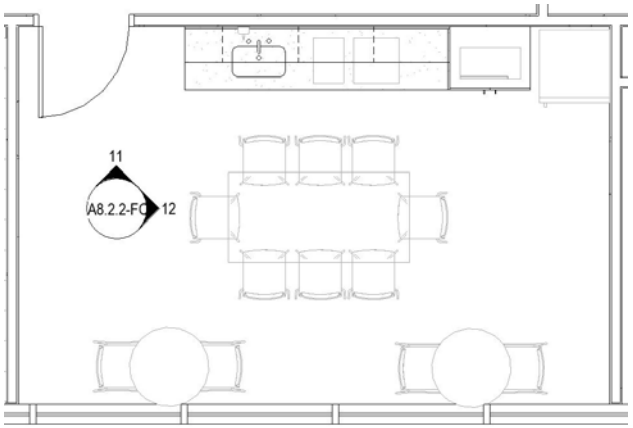
M/S NURSE STATION

TYPICAL STAFF LOUNGE

REFLECTED CEILING PLAN:



FLOOR PLAN:



MATERIALITY:

Northwest View

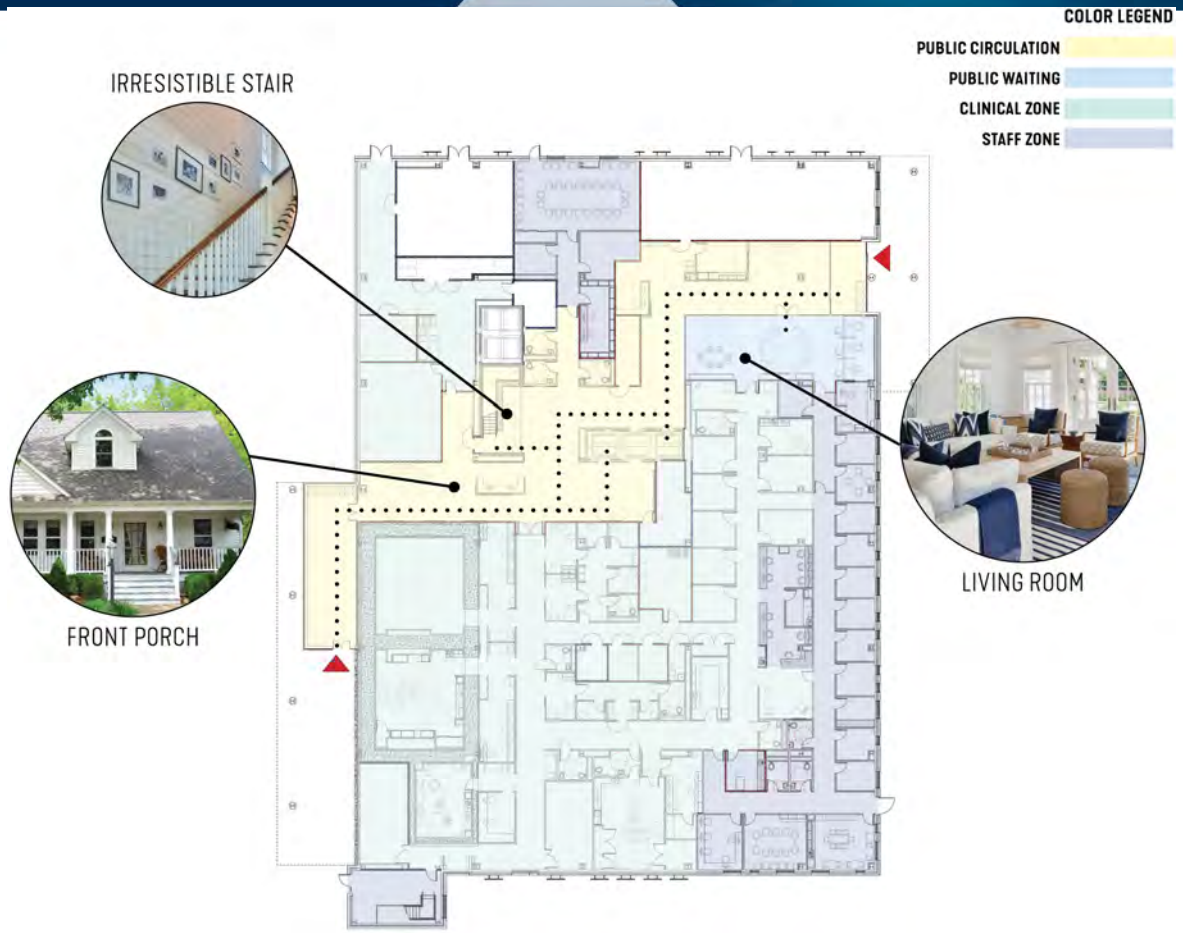
Southwest View

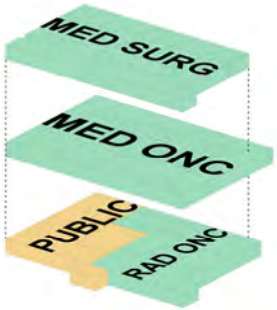
Southeast view

Cross section

PATIENT JOURNEY

MOMENTS THAT MATTER

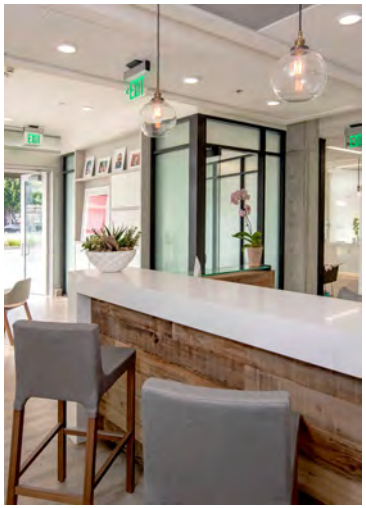


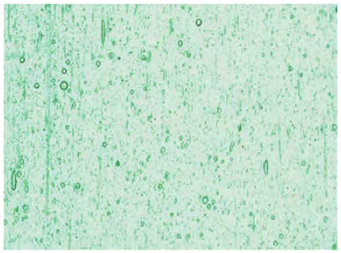


LOOK AND FEEL

RESIDENTIAL, SOPHISTICATED, COMFORTING, TAILORED







MATERIAL PALETTE, PUBLIC LOBBY

ELEVATOR WALL TILE + FIREPLACE TILE,
BEST TILE, RESERVOIR TIMBERWOLFE

GENERAL WHITE PAINT,
BENJAMIN MOORE SIMPLY WHITE

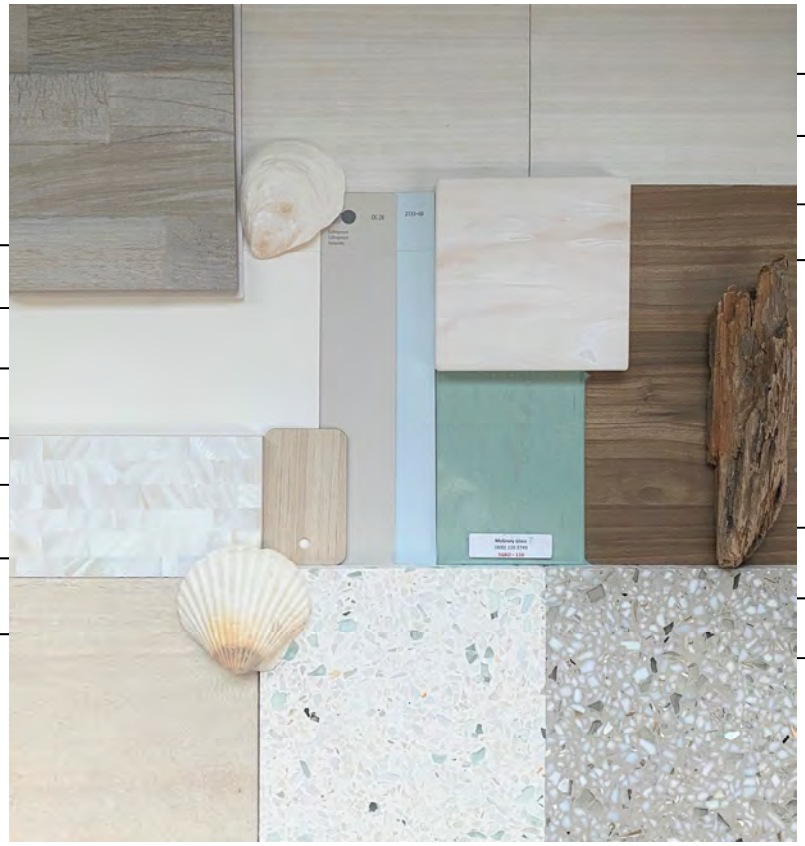
GENERAL NEUTRAL ACCENT PAINT,
BENJAMIN MOORE COLLINGWOOD

GENERAL ACCENT PAINT,
BENJAMIN MOORE SUMMER SHOWER

GENERAL PLASTIC LAMINATE
LAMINART, AMERICAN CHESTNUT

PUBLIC BATHROOM WALL TILE
ARTISTIC TILE WHITE RIVER RIDE

PUBLIC BATHROOM FLOOR TILE
BEST TILE, RUN SALT



USG PLANK CEILING
SARANTE, S-11 CRÈME OVANG

PUBLIC RECEPTION LIGHT PENDANT
SECTO DESIGN

WOOD LOOK PLASTIC LAMINATE ACCENT
NEVAMAR, MACCHIATO WF0011T

PUBLIC SOLID SURFACE
CORAIN, SAND STORMS

SEEDED COLORED GLASS
MCGORY GLASS

PUBLIC TERRAZZO FLOORING
TM SUPPLY, CUSTOM COLORS

PUBLIC TERRAZZO ACCENT FLOORING
TM SUPPLY, CUSTOM COLORS


Cape Cod
Healthcare

FRONT PORCH

Community Benefits and Patient Family Advisors

Cape Cod Healthcare is currently undertaking its Community Health Initiative update to be completed by summer 2022. We would expect approximately $4.5 mm of new community dollars will be awarded over a 5-year period with local, state, and DON approval of the project.

Cape Cod Healthcare is committed to providing the highest level of care in the most state of the art facilities. We believe this project will enhance our existing services and provide a place of restorative health for our patients, community and staff.

APPENDIX 4

FACTOR 4 EXHIBITS

(FINANCIAL FEASIBILITY)

APPENDIX 4.01

F4.a.i CAPITAL COSTS CHART

Factor 4: Financial Feasibility and Reasonableness of Expenditures and Costs

Applicant has provided (as an attachment) a certification, by an independent certified public accountant (CPA) as to the availability of sufficient funds for capital and ongoing operating costs necessary to support the Proposed Projects without negative impacts or consequences to the Applicant's existing Patient Panel.

F4a.i **Capital Costs Charts:**

For each Functional Area document the square footage and costs for New Construction and/or Renovations

		Present Square Footage		Square Footage Involved in Project			Resulting Square Footage		Total Cost		Cost/Square Footage	
				New Construction		Renovation						
Add/Del Rows	Functional Areas	Net	Gross	Net	Gross	Gross	Net	Gross	New Construction	Renovation	New Construction	Renovation
Shared	**Stairs/Elevators**			**1023**	**1376**				1,238,400		900.00	
Shared	**Shafts**			**465**	**521**				442,850		850.00	
FL-1	**General Building**			**5843**	**6519**				5,867,100		900.00	
FL-1	**MEP/IT/Building Support**			4912	5500							
FL-1	**Off-Stage Circulation**			931	1019							
FL 1	**Lobby**			**4717**	**5049**				3,281,850		650.00	
FL 1	**Cancer Center**			**1499**	**1648**				947,600		575.00	
	Cancer Center Patient Care			153	163							
	Cancer Center Conf			724	764							
	Cancer Center Staff/Administrative			497	585							
	Cancer Center Circulation			125	136							
FL 1	**Infill Shell**			**16573**	**16861**	**2500**			9,273,550	2,625,000	550.00	1050.00
FL 1	**Connector Circulation**			**2363**	**2746**				2,402,750		875.00	
	On-stage connector			1012	1204							
	Off-stage connector			1351	1542							
FL 1	**Radiation Oncology**			**14155**	**16787**				14,773,903		880.08	
	Radiation Oncology Patient Care			4862	6562							
	Radiation Oncology Clinical Support			2668	3062							
	Radiation Oncology Staff/Administrative			1632	1914							
	Radiation Oncology Waiting			1016	1065							
	Radiation Oncology Circulation			3977	4184							
FL 2	**Medical Oncology**			**19445**	**21561**				16,711,284		775.07	
	Medical Oncology Patient Care			6720	7752							
	Medical Oncology Clinical Support			2380	2636							
	Medical Oncology Staff/Administrative			2286	2554							
	Medical Oncology Circulation			5934	6343							
	Medical Oncology Lab			507	563							
	Medical Oncology Waiting			1618	1713							
FL-3	**MEP/IT/Building Support**			**489**	**545**				479,600		880	
FL 2	**Pharmacy**			**928**	**1018**				2,239,600		2200	
FL 2	**Infill Penthouse**			**2761**	**2985**				4,477,500		1500	
FL 3	**Med-Surg Unit**			**20618**	**24235**				17,984,794		742	
	Med-Surg Patient Care			10117	11992							
	Med-Surg Clinical Support			3360	3762							
	Med-Surg Staff/Administrative			1010	1123							
	Med-Surg Circulation			5701	6849							
	Med-Surg Waiting			430	509							
FL-3	**MEP/IT/Building Support**			**489**	**548**				482,240		880	
FL 4	**Shell Space**			**22890**	**23815**				13,098,250		550	
FL-4	**MEP/IT/Building Support**			**494**	**544**				231,200		425	
FL-4	**Shell Space Circulation**			**488**	**537**				295,441		550.17	
FL 5	**Penthouse**			**7440**	**7643**				34,393,500		4500.00	
	Total: (calculated)	0	0	123169	134938	2500	0	0	128,621,412	2,625,000	953.19	1050.00

APPENDIX 4.02

CPA REPORT

Analysis of the Reasonableness of Assumptions Used For and Feasibility of Projected Financials of:

Cape Cod Healthcare, Inc.

For the Years Ending September 30, 2022
Through September 30, 2027

Tel: 617-422-0700
Fax: 617-422-0909
www.bdo.com

One International Place
Boston, MA 02110-1745

March 17, 2022

Richard Silveria
Chief Financial Officer
Cape Cod Healthcare, Inc.
88 Lewis Bay Road
Hyannis, MA 02601

RE: Analysis of the Reasonableness of Assumptions and Projections Used to Support the Financial Feasibility and Sustainability of the Proposed Project

Dear Mr. Silveria:

Enclosed is a copy of our report on the reasonableness of assumptions used for and feasibility of the financial projections for Cape Cod Healthcare, Inc. Please contact me to discuss this report once you have had an opportunity to review.

Sincerely,

BDO USA, LLP

TABLE OF CONTENTS

Tel: 617-422-0700
Fax: 617-422-0909
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One International Place
Boston, MA 02110-1745

March 17, 2022

Richard Silveria
Chief Financial Officer
Cape Cod Healthcare, Inc.
88 Lewis Bay Road
Hyannis, MA 02601

RE: Analysis of the Reasonableness of Assumptions and Projections Used to Support the Financial Feasibility and Sustainability of the Proposed Project

Dear Mr. Silveria:

We have performed an analysis related to the reasonableness and feasibility of the financial projections (the "Projections") of Cape Cod Healthcare, Inc. ("CCHC" or "the Applicant") related to its Determination of Need ("DON") filing in connection with a planned expansion of Cape Cod Hospital located in Hyannis, Massachusetts (the "Proposed Project"), described further below. This report details our analysis and findings with regards to the reasonableness of assumptions used in the preparation of the Projections and feasibility of the projected financial results prepared by the management of CCHC ("Management"). This report is to be used by CCHC in connection with its DON Application – Factor 4 and should not be distributed or relied upon for any other purpose.

I. EXECUTIVE SUMMARY

The scope of our review was limited to an analysis of the six-year financial projections for the Applicant for the fiscal years ending 2022 through 2027 prepared by Management and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections.

The Projections exhibit a cumulative operating EBITDA surplus of approximately 5.4 percent of cumulative projected revenue for CCHC for the six years from fiscal year ("FY") 2022 through 2027. Based upon our review of the relevant documents and analysis of the Projections, we determined the anticipated operating EBITDA surplus is a reasonable expectation and based upon feasible financial assumptions. Accordingly, we determined that the Projections are reasonable and feasible, and not likely to have a negative impact on the Applicant's patient panel or result in a liquidation of CCHC's assets. A detailed explanation of the basis for our determination of reasonableness and feasibility is contained within this report.

II. RELEVANT BACKGROUND INFORMATION

CCHC is a not-for-profit corporation that serves as the parent company of various entities providing health care services to the residents and visitors of Cape Cod, Massachusetts. The Applicant has more than 450 physicians, 5,300 employees, and 790 volunteers across two acute care hospitals, a skilled nursing and rehabilitation facility, an assisted living facility, an ambulatory surgery center, and numerous primary and specialty care physician practices along with other health programs.

Cape Cod Hospital ("CCH"), one of two CCHC hospitals (the other being Falmouth Hospital Association, Inc. ("Falmouth Hospital")), was opened in 1920 and its main campus is comprised of several buildings built throughout the 20th century. Due to advancements in patient care techniques and utilization of diagnostic equipment in patient rooms, larger and better equipped rooms are required to serve patients both efficiently and cost effectively and remain competitive. Additionally, patient expectations for privacy and family space has led to new

market standards for private rooms. As such, the Applicant proposes to build a new building on the existing CCH campus. The new facility will include: (1) relocated and expanded medical oncology department; (2) relocated radiation oncology department; (3) relocated medical/surgical unit consisting of 32 beds; and (4) shell space for future projects. The Proposed Project is anticipated to be completed and in place for occupancy in October 2024.

The first and second floors of the new building will include radiation and medical oncology. The new cancer center will increase capacity as the existing space has constrained program development. The Proposed Project will increase capacity for medical oncology treatment from 19 patient bays to 36 patient bays and from 12 exam rooms to 16 exam rooms. This increased capacity for medical appointments and chemotherapy will reduce delays to beginning and receiving treatment. Additionally, the Proposed Project will centralize medical oncology services by co-locating exam rooms, infusion therapy, pharmacy services, and the oncology laboratory in one location in the new building.

The third floor will house a 32-bed cardiovascular medical/surgical unit. These beds will replace the existing 12-bed and 24-bed cardiovascular medical/surgical units housed in a 1950's building. The Proposed Project will combine the existing smaller units into one unit, which will enable better clinical team collaboration. The patient rooms will include required bed clearance, non-slip flooring, and space for family visitation and necessary equipment.

The fourth floor will be shelled and unfinished and reserved for future use.

III. SCOPE OF REPORT

The scope of this report is limited to an analysis of the six-year financial projections for CCHC, the Applicant, for the fiscal years ending 2022 through 2027, prepared by Management, and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections. Reasonableness is defined within the context of this report as supportable and proper, given the underlying information. Feasibility is defined as based on the assumptions used the Proposed Project is not likely to result in a liquidation of the underlying assets or the need for reorganization.

This report is based on prospective financial information provided to us by Management. BDO understands the prospective financial information was developed as of March 11, 2022 and is still representative of Management's expectations as of the drafting of this report. BDO has not audited or performed any other form of attestation services on the projected financial information related to the operations of CCHC.

If BDO had audited the underlying data, matters may have come to our attention that would have resulted in our using amounts that differ from those provided. Accordingly, we do not express an opinion or any other assurances on the underlying data presented or relied upon in this report. We do not provide assurance on the achievability of the results forecasted by the Applicant because events and circumstances frequently do not occur as expected, and the achievement of the forecasted results are dependent on the actions, plans, and assumptions of Management. We reserve the right to update our analysis in the event that we are provided with additional information.

IV. SOURCES OF INFORMATION UTILIZED

In formulating our opinions and conclusions contained in this report, we reviewed documents produced by Management as well as third party industry data sources. The documents and information upon which we relied are identified below or are otherwise referenced in this report:

1. Financial Model for CCHC for the periods ending September 30, 2019 through September 30, 2027, including three-year historical and six-year income statement, balance sheet, and cash flow;
2. Key Ratios for the periods ending September 30, 2019 through September 30, 2027;
3. Global Baseline Model Assumptions for CCHC;
4. Assumptions for 6 Year Planning for CCHC;
5. Key Operating Statistics for Baseline, Trauma, and Tower;
6. Budget Fiscal Year 2022 Board Presentation dated September 13, 2021;
7. Summary Visits and Discharges for Year-to-Date December 31, 2020 and December 31, 2021;
8. Cape Cod Hospital Cancer and Cardiology Expansion Project Overview Presentation;
9. CCHC DON Long Range Plan Draft Presentation dated January 14, 2022;
10. Tower Project Spend Budget Summary;
11. Draft CCH Tower Narrative for DON Application;
12. Draft Capital Expenditure Tables for DON Application;
13. PP&E Rollforward for FY21 through FY27;
14. Design Build Proposal from SmithGroup dated July 22, 2021;

15. Owners Project Manager Services Proposal from MEDCOM Architectural Group, LLC dated August 12, 2021;
16. Commissioning Fee Proposal from CMTA dated January 11, 2022;
17. Suffolk Construction Company, Inc. Conceptual Estimate dated September 7, 2021;
18. Telemetry Budget Proposal from Nihon Kohden dated January 27, 2022;
19. Preconstruction Services Agreement between CCHC and Suffolk Construction Company, Inc. and Associated Amendments;
20. Equipment Item Summary related to the Proposed Project provided by Shen Milsom & Wilke LLC;
21. Unaudited Combined Financial Report for Cape Cod Healthcare for the Period Ended November 30, 2021, including an actual-to-budget comparison of operating performance;
22. Unaudited Statement of Operations and Change in Unrestricted Net Assets for Cape Cod Healthcare for the Period Ended December 31, 2021, including an actual-to-budget and an actual-to-prior year comparison of operating performance;
23. Audited Consolidated Financial Statements and Supplemental Consolidating Information for CCHC and Affiliates for Fiscal Year Ending September 30, 2021 and 2020;
24. Audited Consolidated Financial Statements and Supplemental Consolidating Information for CCHC and Affiliates for Fiscal Year Ending September 30, 2020 and 2019;
25. Integra Reports, published by MicroBilt Corporation;
26. Definitive Healthcare data;
27. IBISWorld Industry Report, Hospitals in the US, dated November 2021; and
28. Determination of Need Application Instructions dated March 2017.

V. REVIEW OF THE PROJECTIONS

This section of our report summarizes our review of the reasonableness of the assumptions used and feasibility of the Projections.

The following tables present the Key Metrics, as defined below, which compare the operating results of the Projections to market information from Integra Reports ("Integra"), IBISWorld, and Definitive Healthcare as well as the Applicant's historical performance, to assess the reasonableness of the projections.

Key Financial Metrics and Ratios	Projected					
Cape Cod Healthcare, Inc.	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Profitability						
Operating Margin (%)	0.7%	1.3%	1.6%	1.5%	1.6%	1.6%
Excess Margin (%)	1.9%	2.4%	2.6%	2.4%	2.6%	2.5%
Debt Service Coverage Ratio (x)	3.5x	4.9x	6.0x	6.6x	7.0x	7.0x
Liquidity						
Days Available Cash and Investments on Hand (#)	227.5	220.3	201.0	204.7	210.4	214.5
Operating Cash Flow (%)	4.5%	4.9%	5.4%	5.5%	5.6%	5.4%
Solvency						
Current Ratio (x)	1.5x	1.5x	1.5x	1.5x	1.5x	1.5x
Ratio of Long Term Debt to Total Capitalization (%)	10.1%	8.7%	7.5%	6.4%	5.2%	4.3%
Ratio of Cash Flow to Long Term Debt (%)	48.1%	61.3%	77.8%	94.3%	115.8%	139.4%
Unrestricted Net Assets ($ in thousands)	$ 840,887	$ 874,278	$ 913,078	$ 951,867	$ 993,284	$ 1,032,511
Total Net Assets ($ in thousands)	$ 919,458	$ 953,663	$ 991,733	$ 1,026,308	$ 1,063,035	$ 1,100,156

Key Financial Metrics and Ratios	Actual			Industry Data (1)		
Cape Cod Healthcare, Inc.	2019	2020	2021	Integra - General Medical and Surgical Hospitals	IBIS - Hospitals in the US	Definitive Healthcare
Profitability						
Operating Margin (%)	2.3%	-1.2%	-1.2%	3.5%	7.0%	-9.2%
Excess Margin (%)	4.3%	0.5%	3.3%	1.4%	NA	-1.5% (2)
Debt Service Coverage Ratio (x)	5.2x	3.9x	4.8x	1.4x	14.3x	NA
Liquidity						
Days Available Cash and Investments on Hand (#)	205.4	298.2	285.5	NA	NA	31.0
Operating Cash Flow (%)	6.6%	4.9%	3.4%	7.0%	55.7%	NA
Solvency						
Current Ratio (x)	1.7x	1.2x	1.3x	2.5x	1.1x	0.6x
Ratio of Long Term Debt to Total Capitalization (%)	15.2%	13.7%	11.6%	43.1%	NA	NA
Ratio of Cash Flow to Long Term Debt (%)	47.9%	37.4%	30.2%	25.8%	NA	NA
Unrestricted Net Assets ($ in thousands)	$ 751,514	$ 772,039	$ 808,869	NA	NA	NA
Total Net Assets ($ in thousands)	$ 817,179	$ 844,466	$ 892,989	$ 1,935,790	NA	NA

Footnotes:

(1) Industry data ratios based on each data source's respective definitions and may differ from the ratio definitions listed below.

(2) Net income margin from Integra and Definitive Healthcare data treated as an equivalent to excess margin.

The Key Metrics fall into three primary categories: profitability, liquidity, and solvency. Profitability metrics are used to assist in the evaluation of management performance in how efficiently resources are utilized. Liquidity metrics, including common ratios such as “days of available cash and investments on hand”, measure the quality and adequacy of assets to meet current obligations as they come due. Solvency metrics measure the company’s ability to take on and service debt obligations. Additionally, certain metrics can be applicable to multiple categories. The table below shows how each of the Key Metrics are calculated.

Key Financial Metrics and Ratios

Ratio Definitions	Calculation
Profitability	
Operating Margin (%)	Excess of Revenue over Expenses from Operations Divided by Total Operating Revenue
Excess Margin (%)	Excess of Revenue over Expenses Divided by (Total Operating Revenue + Net Non-Operating Revenue)
Debt Service Coverage Ratio (x)	(Excess of Revenue over Expenses + Depreciation and Amortization + Interest) Divided by (Principal Payments and Interest)
Liquidity	
Days Available Cash and Investments on Hand (#)	(Cash and Board Designated Investments) Divided by [(Total Operating Expenses Less Depreciation and Amortization) / 365]
Operating Cash Flow (%)	(Excess of Revenue over Expenses from Operations Plus Depreciation and Amortization) Divided by Total Operating Revenue
Solvency	
Current Ratio (x)	Current Assets Divided by Current Liabilities
Ratio of Long Term Debt to Total Capitalization (%)	Long Term Debt Divided by Total Capitalization (Long Term Debt and Unrestricted Net Assets)
Ratio of Cash Flow to Long Term Debt (%)	(Excess of Revenue over Expenses from Operations Plus Depreciation and Amortization) Divided by Long Term Debt
Unrestricted Net Assets ($ in thousands)	Total Unrestricted Net Assets
Total Net Assets ($ in thousands)	Total Fund Balance

1. Revenue

We analyzed the projected revenue within the Projections. Revenue for the Applicant includes net patient service revenue ("NPSR") and other operating revenue. Historically, approximately 63.5 percent of revenue is derived from CCH and 17.5 percent from Falmouth Hospital. The remainder of revenue is derived from the Applicant's other entities, including revenue recorded by the parent company itself, the Cape Cod Healthcare Foundation, Inc., Medical Affiliates of Cape Cod, Inc., Visiting Nurse Association of Cape Cod, JML Care Center, Inc., Cape and Islands Health Services II, Inc., Falmouth Assisted Living, Inc., Cape Cod Human Services, Inc., Cape Health Insurance Company, and Cape Cod Research Institute. Approximately 93.0 percent of revenue is derived from net patient service revenue.

NPSR is projected to grow between 2.9 percent and 4.0 percent annually between FY 2023 and FY 2027 which is below actual growth of 6.8 percent in FY 2021. NPSR in FY 2022 is projected to grow 8.2 percent. We understand FY 2022 is based on the Applicant's Board-approved budget, adjusted following the Applicant's performance in the first quarter of 2022. BDO reviewed the Applicant's year-to-date results as of December 31, 2021 and compared the results to the first quarter budget as well as the prior year actuals for the same period. We understand growth in FY 2022 relates to patients who had put off care due to the coronavirus pandemic ("COVID-19") as well as increases in laboratory volumes related to testing and vaccinations.

Based upon our discussions with Management and the documents provided, the projected net patient service revenue was estimated based upon Management's anticipated changes in the following categories:

Inpatient Discharges Growth

Inpatient discharges for FY 2022 are estimated at 6.0 percent for CCH and 4.0 percent for Falmouth Hospital. Thereafter, inpatient discharges at CCH and Falmouth Hospital are projected to grow 1.0 percent annually between FY 2023 and FY 2027. Management also included an estimated 95 inpatient discharges in FY 2023 and 379 inpatient discharges annually from FY 2024 through FY 2027 related to trauma as CCH is developing a trauma program and expected to be certified as a Level III Trauma Center in January of FY 2023. No additional inpatient discharges were included within the Projections related to the Proposed Project.

Outpatient Visits Growth

Outpatient visits are expected to grow 8.3 percent in FY 2022, between 3.0 percent and 3.2 percent for FY 2023 through FY 2025, and 1.6 percent for FY 2026 and FY 2027. Projected growth in outpatient visits is below historical growth of 16.3 percent in 2022. Outpatient visits related to the Applicant's trauma program were estimated at 44 visits in FY 2023 and 175 outpatient visits annually from FY 2024 through FY 20327 These outpatient visits related to trauma are included within the noted growth rates. No additional outpatient visits were included within the Projections related to the Proposed Project.

Reimbursement Inflation Rates by Payor

Projected payor increases were provided by the physician hospital organization for non-government payor and any non-negotiated years were projected to increase at an annual rate of 2.0 percent. Medicare and Mass Health are projected to increase 1.0 percent and 0.5 percent annually, respectively. The Applicant's payor mix is based on the actual payor mix in FY 2021, adjusted in FY 2023 and FY 2024 by a 0.5 percent increase from Medicare to commercial.

The Proposed Project has been designed to meet the healthcare needs of the Cape Cod community. As a result, the Projections do not include incremental revenue related to the Proposed Project.

In order to determine the reasonableness of the projected revenue, we reviewed the underlying assumptions upon which Management relied. Based upon our review, Management relied upon the historical operations and anticipated market movements. Based upon the foregoing, it is

our opinion that the revenue growth projected by Management is based on a reasonable estimation of future revenue of CCHC.

2. Operating Expenses

We analyzed each of the categorized operating expenses for reasonableness and feasibility as it related to the Projections.

The operating expenses in the analysis include salaries and wages, employee benefits, professional fees, supplies, purchased services, depreciation and amortization, interest, and other expense. Salaries and wages account for approximately 47.0 percent of total operating expenses and supplies account for approximately 20.0 percent of total operating expenses.

Salaries and wages were projected to increase 7.5 percent in FY 2022 and between 2.8 percent and 3.6 percent between FY 2023 and FY 2027. Growth in salaries and wages includes an increase in full time equivalents ("FTEs") and an inflationary increase in salaries/wages. Salary increases for CCH and Falmouth Hospital are based on negotiated contracts, where available. For non-negotiated years, an annual salary increase of 3.0 percent was assumed for union employees and 2.0 percent for non-union employees. A net change of 331 FTEs is expected over the projection period, with 13 of these (FTEs) relating to the Proposed Project. The remaining increase in FTEs relates to growth in discharges and visits and the trauma program.

Supplies were projected to increase 9.3 percent in FY 2022, 0.2 percent in FY 2023, and between 3.0 percent and 3.5 percent annually for FY 2024 through FY 2027. Projected growth

in supplies, with the exception of FY 2022, falls within the historical range of growth from -3.6 percent to 7.4 percent.

Based upon the foregoing, it is our opinion that the operating expenses projected by Management are based on a reasonable estimation of future expenses of the Applicant.

3. Capital Expenditures and Proposed Project Financing

We reviewed the project costs within the Projections related to the Proposed Project which totaled $172.6M, of which $137.0 million are classified as maximum capital expenditures per Management under the DON regulations. The total project costs related to the Proposed Project are included within the Projections between FY 2022 and FY 2026, with the majority incurred in FY 2023 and FY 2024. The Projections also include routine capital expenditures of $14.4 million annually. The total project cost budget for the Proposed Project was based primarily on the following, which were obtained and reviewed by BDO: (1) a construction estimate by the construction manager, Suffolk Construction Company, Inc. and (2) an equipment listing estimate provided by Shen Milsom & Wilke LLC. We note that construction cost of $137.8M is approximately 80.0 percent of the total project cost for the Proposed Project.

In addition to capital expenditures, we also reviewed the proposed financing of the Proposed Project. It is our understanding that the expenditures related to the Proposed Project are expected to be funded through the Applicant's net assets and cash flows and that the Applicant liquidated some of the investment pool for use in funding the Proposed Project. The capital expenditures are included within the Applicant's cash flows with no additional debt financing

anticipated. We note that the Projections include cumulative capital expenditures of $336.5M, of which the Proposed Project will represent approximately 51.3 percent. We note the model indicates a decline in the total cash balance in FY 2022 through FY 2024, while maintaining a healthy days available cash and investments on hand ratio, before increasing again in FY 2025 through FY 2027. Therefore, there appears to be sufficient room to accommodate the financing for the Proposed Project within the Application's normal capital expenditures without the need for debt financing.

VI. FEASIBILITY

We analyzed the Projections and Key Metrics for the Proposed Project. In preparing our analysis we considered multiple sources of information including industry metrics, historical results, and Management expectations. It is important to note that the Projections do not account for any anticipated changes in accounting standards. These standards, which may have a material impact on individual future years, are not anticipated to have a material impact on the aggregate Projections.

Within the projected financial information, the Projections exhibit a cumulative operating EBITDA surplus of approximately 5.4 percent of cumulative projected operating revenue for the six years from 2022 through 2027. Based upon our review of the relevant documents and analysis of the Projections, we determined the anticipated operating surplus is a reasonable expectation and based upon feasible financial assumptions. Accordingly, we determined that the Projections are reasonable and feasible, and not likely to have a negative impact on the patient panel or result in a liquidation of assets of CCHC.

Respectively submitted,

Erik Lynch
Partner, BDO USA LLP

APPENDIX 5

FACTOR 6 EXHIBITS

(COMMUNITY HEALTH INITIATIVE)

APPENDIX 5.01

CHI NARRATIVE

CAPE COD HEALTHCARE
DoN Community Health Initiative Narrative

A. Community Health Initiative Monies

The breakdown of Community Health Initiative ("CHI") monies for the Proposed Project is as follows. Please note, all totals are presented in the order calculated, beginning with the Maximum Capital Expenditure ("MCE").

	Total	Description
MCE	$137,048,632.00	
CHI Monies	$6,852,431.60	(5% of Maximum Capital Expenditure)
Administrative Fee	$137,048.63	(2% of the CHI Monies, retained by CCHC)
Remaining Monies	$6,715,382.97	(CHI Monies minus the Administrative fee)
Statewide Initiative	$1,678,845,74	(25% of remaining monies, paid to State-wide fund)
Local Initiative	$5,036,537.23	(75% of remaining monies)
Evaluation Monies	$503,653.72	(10% of Local Initiative Monies, retained by CCHC)
CHI Monies for Local Disbursement	$4,532,883,51	

B. Overview and Discussion of CHNA/DoN Processes

The Community Health Initiative ("CHI") processes and community engagement for the proposed Determination of Need ("DoN") Project[1] will be conducted by Cape Cod Healthcare ("CCHC" or the "Applicant"). Cape Cod Healthcare is the predominant provider of healthcare services for residents and visitors of Cape Cod. With more than 450 physicians, 5,300 employees and 790 volunteers, Cape Cod Healthcare includes two acute care hospitals, homecare and hospice services, a skilled nursing and rehabilitation facility, an assisted living facility, an ambulatory surgery center, and numerous primary and specialty care physician practices along with many other health programs.

CCHC is currently conducting its triennial community health needs assessment ("CHNA") which will serve as the basis for its 2023-2025 implementation plan. The purpose of the CHNA is to undertake a data-driven and community-led process that identifies and prioritizes the health needs of residents of the region based on the frequency, size, scope, and magnitude of the issues. To accomplish this, the CHNA will include two phases:

(1) a community health needs assessment (CHNA) to identify the health-related needs and strengths of the region; and
(2) a strategic implementation plan to identify major health priorities, develop goals, select strategies and identify partners to address these priority issues across the region.

As with prior CHNAs, the CHNA will use a participatory, collaborative approach and examine health in its broadest context. Many sources and data collection methodologies are used to obtain a comprehensive view of the health and health care needs of the region and the people served by CCH and FH. Input on the design of data collection instruments is solicited from public health experts, health care consumers, and persons representing vulnerable and medically underserved populations and minorities. Conscientious efforts will be made to reach a wide-ranging population of residents during data collection to ensure

[1] This Application requests approval for the construction of a new facility at Cape Cod Hospital that will include (1) the relocation and expansion of the medical oncology service, (2) the relocation of the radiation therapy service, and (3) the relocation of one (1) medical-surgical inpatient unit. The new facility will also include shell space for future projects as demand dictates.

broad representation of community interests and perspectives. Data sources include secondary data, community stakeholder conversations, interviews, focus groups, and a community survey.

As a result of these efforts, the CHNA will provide valuable information to:

- Identify vulnerable, disadvantaged, and medically underserved target population
- Identify key areas of significant community need and vulnerable populations
- Examine the impact and role of social determinants of health in the community
- Monitor regional health data and maintain an inventory of available resources
- Facilitate the development of multi-year implementation strategies to guide hospital community health initiatives and community investments to improve health; and
- Promote partnership and dialogue between the hospitals and community organizations

C. Oversight of the CHI Process

CCHC's Community Health Committee will serve as the CHI's Advisory Board ("CAB"). The CAB is comprised of individuals from across the Cape and Islands as well as a variety of public and private agencies that enable the CAB to meaningfully represent the community throughout the CHI process.

D. Advisory Committee Duties

The scope of work that the Committee will carry out includes:

- Ensuring appropriate engagement with residents from targeted communities and community partners around the CHI.
- Determining the Health Priorities for CHI funding based upon the needs identified in the 2023 CHNA/CHIP. Further, the CAB will ensure that all Health Priorities are aligned with the Department of Public Health's Health Priorities and the Executive Office of Health and Human Services' Focus Areas.
- Providing oversight to the evaluator that is carrying out the evaluation of CHI-funded projects.
- Participating in a conflict-of-interest disclosure process to determine which members also will comprise the Allocation Committee (see below).

E. Allocation Committee Duties

The Allocation Committee will be comprised of individuals from the CAB who do not have a conflict of interest in regard to funding. The scope of work that the Allocation Committee will carry out includes:

- Selecting Strategies for the noted Health Priorities.
- Completing and submitting the Health Priorities and Strategies Selection Form for approval by the Department of Public Health.
- Carrying out a formal request for proposal ("RFP") process (or an equivalent, transparent process) for the disbursement of CHI funds.
- Engaging resources that can support and assist applicants with their responses to the RFP.
- Disbursement of CHI funding.
- Providing oversight to a third-party vendor that is selected to carry out the evaluation of CHI-funded projects.

F. Timeline for CHI Activities

Upon a Notice of Determination of Need being issued by the Public Health Council, the CAB will commence meeting and begin the CHI Process. The timeline for CHI activities is as follows:

- Six weeks post-approval: The CAB will begin meeting and reviewing the 2023 CHNA/CHIP to commence the process of selecting Health Priorities.
- Three – four months post-approval: The CAB has determined Health Priorities for funding.
- Four – five months post-approval: The Allocation Committee is selecting strategies for the Health Priorities and will submit the Health Priorities and Strategies Form to the Department.
- Five – six months post-approval: The Allocation Committee is developing the RFP process and determining how this process will work in tandem with CCHC's current grant efforts.
- Five – six months post-approval: CCHC will commence working with the evaluator that will serve as a technical resource to grantees.
- Nine months post-approval: The RFP for funding is released.
- Ten months post-approval: Bidders conferences are held on the RFP.
- Twelve months post-approval: Responses are due for the RFP.
- Fifteen months post-approval: Funding decisions are made, and the disbursement of funds begins.
- Eighteen months to six years post-approval: Evaluation efforts and reporting is ongoing.

G. Request for Additional Years of Funding

CCHC is seeking additional time to carry out the disbursement of funds for CHI. Based on CCHC's previous experience with providing grant funding, CCHC is seeking to distribute funds over five years. As a result of the longer time frame, CCHC intends to fund several multi-year grants with CHI funding. Therefore, CCHC is seeking to disburse these monies over a five-year period to ensure the greatest impact for the largest number of individuals.

H. Evaluation Overview

CCHC is seeking to use 10% of local CHI funding ($503,653.72) for evaluation efforts. These monies will allow Applicant to engage a third-party evaluator to carry out technical assistance and ensure appropriate evaluation of the CHI-funded projects.

I. Administrative Monies

Applicants submitting a Tier 3 CHI are eligible for a two percent (2%) administrative fee. Accordingly, Applicant is requesting $137,048.63 in administrative funding. These monies are critical in developing a sound CHI process that complies with the Department of Public Health's expectations as administrative funding will be used to hire additional support staff. These monies will also pay for reporting and dissemination of promising practices and lessons learned, facilitation support for the CAB and Allocation Committee, costs associated with the development of communication materials and placement of procurement information in community newspapers. Finally, these monies will help to offset the costs of the development and implementation of the RFP process.

APPENDIX 5.02

CHNA/CHIP SELF-ASSESSMENT FORM

Massachusetts Department of Public Health
Determination of Need
Community Health Initiative
CHNA / CHIP Self Assessment

Version: 8-1-17

This self-assessment form is to understand the Community Engagement process that has led/ will lead to the identification of priorities for community health planning processes. It is being used to demonstrate to DPH that an existing community health planning process adequately meets DPH standards for community engagement specific to Determination of Need, Community Health Initiative purposes.

This form will provide the basic elements that the Department will use to determine if additional community engagement activities will be required. When submitting this form to DPH, please also submit your IRS Form 990 and Schedule H CHNA/CHIP and/or current CHNA/ CHIP that was submitted to the Massachusetts Attorney General's Office. Additionally, the Applicant is responsible for ensuring that the Department receives Stakeholder-Assessments from the stakeholders involved in the CHNA / CHIP process.

All questions in the form, unless otherwise stated, must be completed.

Approximate DoN Application Date: 03/01/2022 DoN Application Type: Hospital/Clinic Substantial Capital Expenditure

What CHI Tier is the project? ○ Tier 1 ○ Tier 2 ◉ Tier 3

1. DoN Applicant Information

Applicant Name: Cape Cod Healthcare

Mailing Address: 27 Park Street

City: Hyannis State: Massachusetts Zip Code: 02601

2. Community Engagement Contact Person

Contact Person: Jennifer Cummings Title: Associate Director of Development & Community Benefits

Mailing Address: PO Box 370

City: Hyannis State: Massachusetts Zip Code: 02601

Phone: 5088627849 Ext: E-mail: jrcummings@capecodhealth.org

3. About the Community Engagement Process

Please indicate what community engagement process (e.g. the name of the CHNA/CHIP) the following form relates to. This will be use as a point of reference for the following questions and does not need to be a fully completed CHNA or implemented CHIP.
(please limit the name to the following field length as this will be used throughout this form):

CCH & FH CHNA & IP 2020 - 2022

4. Associated Community Health Needs Assessments

In addition to the above engagement process, please list Community Health Needs Assessments and/or Community Health Improvement Planning Processes, if any that the Applicant been involved with in the past 5 years (i.e. CHNA/CHIP processes not led by the Applicant bur where the Applicant was involved?

(Please see page 22 of the Community-Based Health Initiative Guidelines for reference http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf)

Add/ Del Rows	Lead Organization Name / CHNA/CHIP Name	Years of Collaboration	Name of Lead Organizer	Phone Number	Email Address of Lead Organizer
+ -	Cape Cod Covid 19 Response Task Force: see description in attached Narrative	2	Senator Julian Cyr	6177221570	julian.cyr@masenate.gov

5. CHNA Analysis Coverage

Within the CCH & FH CHNA & IP 2020 - 2022 , please describe how the following DPH Focus Issues were analyzed DoN Health Priorities and Focus Issues (please provide summary information including types of data used and references to where in the submitted CHNA/CHIP documents these issues are discussed):

5.1 Built Environment

Several strategies were employed to engage and gain perspectives from different population groups during data collection for the CCH & FH CHNA & IP 2020-2022. This process included integrating existing quantitative, secondary data on social, economic, and health issues in the region with qualitative methods to get an understanding of individual thoughts and opinions. The specific data sources and methodologies utilized in the CHNA process included secondary data review, a community health survey, focus groups, community stakeholder dialogs, and key informant interviews.
In analyzing the Built Environment, two sub categories emerged for Barnstable County: Transportation and Environment and Safety. These are discussed in detail on pages 26-27 of the CCH & FH CHNA & IP 2020-2022.
Given the impact that social factors have on health, community survey respondents were asked to identify the social issues most affecting the community. Transportation was cited as the social issue most affecting the community by 39% of respondents.
Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, the group decided on the five priority areas, one of which is transportation

5.2 Education

Focus group participants and key informant interviewees reported that schools in the community are strong. Education was cited as the social issue most affecting the community by only 18.4% of survey respondents. This is discussed in detail on pages 25-27 of the CCH & FH CHNA & IP 2020-2022.
In Barnstable County, 4.6% of residents have less than a high school diploma, compared to 10% at the state level. However, 70.2% or residents have completed at least some amount of college or obtained a college degree, compared to 65.0% at the state level. The four-year high school graduation rate for Barnstable County is slightly lower than the rate for Massachusetts in 2017 (86.0% vs. 88.3%, respectively), which reflects the current population of youth residing year-round in the County.

5.3 Employment

'Employment' was the third most frequently selected social concern by survey respondents as impacting the community in which they live (44.5% of respondents). Community participants in focus groups and dialogues expressed substantial concern about the seasonal job cycle (i.e., high employment in the summer and low employment in the winter) and the impact it has on the overall economy and poverty. Quantitative data confirm that unemployment rates in Barnstable County are highly variable, swinging from highs of 6% to 7% in the winter months to lows of 3% to 4% in the summer months. Employment is discussed in detail on pages 5, 18, and 23-25 of the CCH & FH CHNA & IP 2020-2022.
Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, five priority areas were identified, one of which is Workforce Development.
During the Strategic Implementation planning, it was concluded that CCHC is best positioned to support and collaborate on initiatives that aim to develop the regional healthcare workforce.

5.4 Housing

Housing was the most frequently specified need across all forms of data collection, and is discussed in detail on pages 18-22 of the CCH & FH CHNA & IP 2020-2022.
All stakeholders described the cost and availability of housing as a major concern in Barnstable County. Housing or homelessness was most highly selected as the top social concern for the community (65.5% of survey respondents). The cost of housing also affects the ability to retain healthcare professionals with year-round employment, which interviewees described as potentially having a long-term impact on the availability of health care.
When survey respondents were asked to rate their level of concern for specific housing and economic issues impacting their community, the issues of 'affordable housing for older adults', 'housing costs and issues associated with renting', and 'housing costs and issues associated with home ownership' were rated as a 'high concern' by the largest proportions of survey respondents. Among survey respondents living on the lower or outer cape, each of these issues was rated as a 'high concern' by an even larger proportion of respondents (69.0%, 66.6%, and 65.6%, respectively).
Further, quantitative data consistently show that the housing stock located in Barnstable County is unique within the state. Half of all the seasonal units that exist in Massachusetts are located in Barnstable County. Furthermore, the number of seasonal units is growing twice as fast as year-round units with implications for the availability of housing to year-round residents. The cost and availability of housing in Barnstable County was mentioned as an area of concern in almost every focus group and interview, as well as in stakeholder dialogues, and was seen as a fundamental challenge affecting overall well-being and health.

Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, five priority areas were identified, one of which is Housing.

5.5 Social Environment

Barnstable County was described by key informant interviewees as a "very collaborative region" and a caring, cooperative community with the ability to respond to issues with strong connectivity. Awareness and collaboration were considered major factors in addressing community issues.
Despite these perceptions, 28.8% of community survey respondents identified 'community engagement/social connections' as a top social concern for the community and 37.1% identified this as a concern for themselves individually and/or their families. Additionally, 'social isolation or loneliness' was rated as a 'high concern' for the community by 21.6% of survey respondents. Several focus group participants noted, for example, that there are few things for younger adults to do, especially in the winter months. Participants in both key informant interviews and stakeholder dialogues discussed the impact of social isolation/loneliness on residents of the Cape.
Social Environment is discussed in detail on pages 28-29 of the CCH & FH CHNA & IP 2020-2022.
We expect to see these levels of social isolation and loneliness increase in our next CHNA as a result of Covid and social distancing.

5.6 Violence and Trauma

The majority of towns in Barnstable County have property crime rates that are on par or below the state rate of 1,437.0 crimes per 100,000 residents. However, the property crime rate is markedly higher in Provincetown (4,243.2 per 100,000). The majority of towns in Barnstable County also have violent crime rates that are on par or below the state rate of 358.0 crimes per 100,000. However, the violent crime rate is higher in Provincetown, Truro, and Yarmouth. Twenty-one percent of community survey respondents identified violence and crime as a community social concern. The specific issues of 'property crime', 'interpersonal violence (e.g., domestic violence, sexual violence, bullying)', and 'community violence (e.g., gangs, guns, street crime)' were each rated as a 'high concern' for the community by about 15% of survey respondents. The issue of domestic violence came up consistently in focus groups and stakeholder dialogues. Focus group participants in particular noted that domestic violence is a concern for the Hispanic community and that access to services is limited by availability and fear in seeking help. (pgs. 18, 29-30)
Violence & Trauma is discussed in detail on pages 18, 29-30 of the CCH & FH CHNA & IP 2020-2022.

5.7 The following specific focus issues

a. Substance Use Disorder

Substance use was identified as the second top health concern among community survey respondents, with over half (57.7%) of respondents identifying this as a top health concern. Substance use disorder is discussed in detail on pages 42-46 of the CCH & FH CHNA & IP 2020-2022.
When survey respondents were asked to rate their level of concern for specific substance use issues impacting their community, the issues of 'opioid misuse,' 'alcohol or binge drinking', and 'other illicit drugs' were rated as a 'high concern' by the largest proportion of survey respondents. Survey respondents of minority race/ethnicity were more likely to rate 'other illicit drugs' (47.5%) and 'vaping or e-cigarettes' as a 'high concern' for the community (33.8%) compared to the overall survey sample.
Existing data on the prevalence of substances use is sparse. Available self-reported data indicate similar proportions of adults who binge drink (approximately 20%) or smoke cigarettes (approximately 14%) in Barnstable County and the state overall. Vaping in particular is emerging as a serious issue for adolescents nationally, in Massachusetts, and in Barnstable County.
Substance abuse-related inpatient discharge rates are lower in Barnstable County than the state. One town, Falmouth, has a rate that exceeds the state rate. Data from the Massachusetts Bureau of Substance Abuse Services (BSAS) demonstrates that the overall substance abuse treatment admission rate is higher in Barnstable County than the state. Over half of all BSAS admissions in Barnstable County were for alcohol, which is a higher proportion than the state, at 34.5%.
The overall opioid mortality rate in 2015 was higher in Barnstable County than the state (41.0 per 100,000 vs. 24.6 per 100,000, respectively).37 The rates in Mashpee (80.8 per 100,000), Falmouth (65.0 per 100,000), and Yarmouth (58.9 per 100,000) were also higher, although in most towns, deaths due to opioids are low and rates are not reportable from the MA DPH. More recent preliminary data on opioid-related overdose deaths for 2016 and 2017 suggest slight downward trends both statewide (from 31.9 to 30.6 per 100,000) and in Barnstable County (from 37.7 to 31.2 per 100,000).
Key informant interviewees discussed, and existing data show, the impact of the opioid crisis on family structures, specifically the higher number of grandparents raising grandchildren. When asked about substance use treatment facilities in the community, interviewees and stakeholder dialogue participants reported that current facilities were insufficient and at capacity and as a result, residents are transported out of the county to receive treatment. Over 20% of community survey respondents rated alcohol or drug treatment services for adults (22.3%) and youth (21.9%) as 'hard' or 'very hard' to access. Interviewees and stakeholder dialogue participants cited a need for more treatment beds, sober houses, and community-based services.
Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, five priority areas were identified, one of which is Mental Health including Substance

Use.
We look forward to updating this data for our next CHNA, as much of the existing data is from 2015. We know that in 2020 overall the opioid overdose death rates for Massachusetts have risen 5%, which is consistent with national trends, and is among the smallest increase seen by a State. However, rates among Black non-Hispanic males have risen a startling 69% in the same time period. We look forward to exploring how this is playing out for Barnstable County and implementing intervention efforts to support individuals with substance use disorder and combat the opioid crisis in our community.

b. Mental Illness and Mental Health

Behavioral health was identified as a top health concern across key informant interviewees, focus group participants, and stakeholder dialogue participants. They mentioned anxiety and depression as well as trauma, including both adverse childhood experiences and post-traumatic stress disorder.
Almost half (46.4%) of survey respondents said mental health issues were a top health concern for the community and 29.5% said it was a top concern for themselves. While stakeholders agreed that risk for mental and behavioral health problems transcend age groups, transitional-aged youth were perceived as having the highest risk. A number of underlying causes of mental health issues were discussed in focus groups, including economic instability, lack of things for young adults to do, and isolation in the off-season.
Existing data related to the prevalence of mental health conditions or experiences of poor mental health are limited. Self-reported data suggest similar proportions of adults in Barnstable County and the state overall report 14 or more days of poor mental health in the prior month (11% vs. 12%). Data on diagnoses of depression indicate rates are slightly higher among residents in Barnstable County than for the state overall, at 6.2% compared to 5.5%, respectively.
The overall inpatient discharge rate for mental health conditions is higher in Barnstable County than the state. The overall suicide mortality rate in Barnstable County is notably higher than the state (16.7 per 100,000 vs. 9.0 per 100,000). The rate in Bourne (20.6 per 100,000) and Barnstable (20.4 per 100,000) are higher than the county rate. However, in most towns, deaths due to suicide are low and rates are not reportable.
Mental health and substance use were also identified as two of the top three health concerns (by 46.4% and 57.7% of community survey respondents, respectively). Mental health and substance use were seen as both deeply intertwined and pervasive concerns in Barnstable County. Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, five priority areas were identified, one of which is Mental Health including Substance Use.
Mental Illness and Mental Health is discussed in detail on pages 39-42 of the CCH & FH CHNA & IP 2020-2022.

c. Housing Stability / Homelessness

All stakeholders described the cost and availability of housing as a major concern in Barnstable County. Housing or homelessness was most highly selected as the top social concern for the community (65.5% of survey respondents). As of 2018, an estimated 358 homeless individuals reside in the Cape Cod region, including 102 dependent children. This annual count has remained consistent over the past three years.
Please see section 5.4 Housing above for more information on Housing Stability / Homelessness. This issue is also discussed in detail on pages 18-22 of the CCH & FH CHNA & IP 2020-2022.
Since our last CHNA was published, Cape Cod Healthcare has built strong relationships with housing and homeless advocates across the region, and participate in regional coalitions to address homelessness on Cape Cod. For our next CHNA, we plan to solicit feedback from a greater number of people currently experiencing homelessness.

d. Chronic Disease with a focus on Cancer, Heart Disease, and Diabetes

Top health concerns for the community cited by survey respondents included chronic health conditions (43.8%) and cancer (36.4%).
Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, five priority areas were identified, one of which is Physical Health with a focus on Chronic Disease.
Cancer: Over one third (36.4%) of community survey respondents identified cancer as a top health concern in the community, and over one quarter (28.0%) of community survey respondents rated cancer as a 'high concern' for the community.
The overall cancer mortality rate is similar in Barnstable County and the state (163.2 per 100,000 vs. 152.8 per 100,000, respectively). However, the mortality rates for breast and prostate cancers are over twice that for the state (breast cancer: 23.5 per 100,000 vs. 9.8 per 100,000; prostate cancer: 21.0 per 100,000 vs. 7.0 per 100,000, respectively). Key informant interviewees identified both skin and breast cancer as important and emerging concerns for the community.
Heart Disease: The rate of Cardiovascular-related Emergency visits among Barnstable County residents is notably higher than for the state (729.2 per 100,000 vs. 379.0 per 100,000). More than half of the Medicare population in Barnstable County currently has a diagnosis of hypertension or hyperlipidemia (61.9% and 55.5%, respectively), which is slightly higher than for the state.
Diabetes: It is estimated that 8% of Barnstable County adults aged 20 and older have been diagnosed with diabetes

compared to 9% in MA overall. More recent data based on the patient populations served by three Federally Qualified Health Centers located within Barnstable County suggest that between 6 to 10% of adults age 18-75 have a current diabetes diagnosis. The rate of diabetes-related emergency department visits among Barnstable County residents is higher than for the state.
Chronic disease is discussed in detail on pages 18-22 of the CCH & FH CHNA & IP 2020-2022.

6. Community Definition

Specify the community(ies) identified in the Applicant's CCH & FH CHNA & IP 2020 - 2022

Add/Del Rows	Municipality	If engagement occurs in specific neighborhoods, please list those specific neighborhoods:
+ -	Barnstable	
+ -	Bourne	
+ -	Brewster	
+ -	Chatham	
+ -	Dennis	
+ -	Eastham	
+ -	Falmouth	
+ -	Harwich	
+ -	Mashpee	
+ -	Orleans	
+ -	Provincetown	
+ -	Sandwich	
+ -	Truro	
+ -	Wellfleet	
+ -	Yarmouth	

7. Local Health Departments

Please identify the local health departments that were included in your CCH & FH CHNA & IP 2020 - 2022 . Indicate which of these local health departments were engaged in this CCH & FH CHNA & IP 2020 - 2022 . For example, this could mean participation on an advisory committee, included in key informant interviewing, etc. (*Please see page 24 in the Communit further description of this requirement* http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf.)

Add/ Del Rows	Municipality	Name of Local Health Dept	Name of Primary Contact	*Email address*	Describe how the health department was involved
+ -	Barnstable	Barnstable County Department of Health and Environment	Deidre Arvidson, RN	darvidson@barnstablecounty.org	Stakeholder Dialogue, Community Forum, and Key Informant Interviews
+ -	Bourne	Town of Bourne Board of Health	Terri Guarino	tguarino@townofbourne.com	Participation on Advisory Committee
+ -	Yarmouth	Town of Yarmouth Health Department	Bruce Murphy	BMurphy@yarmouth.ma.us	Key Informant Interview

8. CHNA / CHIP Advisory Committee

Please list the community partners involved in the CHNA/CHIP Advisory Committee that guided the CCH & FH CHNA & IP 2020 - 2022 . (please see the required list of sectorial representation in the *Community Engagement Standards for Community Health Planning Guidelines* http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf) Please note that these individuals are those who should complete the *Stakeholder Engagement Assessment* form. It is the responsibility of the Applicant to ensure that DPH receives the completed *Stakeholder Engagement Assessment* form:

Add/Del Rows	Sector Type	Organization Name	Name of Primary Contact	Title in Organization	Email Address	Phone Number
	Municipal Staff	Barnstable County Department of Human Services	Beth Albert	Director	balbert@barnstablecounty.org	6176486665
	Education	Cape Cod Coop. Extension	Michael Maguire	Extension Director	mmaguire@barnstablecounty.org	5083756701
	Housing	Housing Assistance Corp.	Alisa Magnotta	CEO	alisa@haconcapecod.org	5087715400
	Social Services	Community Action Committee of Cape Cod & Islands, Inc	Kristina Dower	Executive Director	kdower@jteccorp.com	5088626160
	Planning + Transportation	Cape Cod Regional Transit Authority	Chris Kennedy	Mobility Manager	ckennedy@capecodrta.org	5087758504
	Private Sector/ Business	Cape Cod Healthcare Board of Trustees	Sharon Kennedy	Trustee	sharon@eastwingpr.com	6176486665
	Community Health Center	Outer Cape Health Services	Leo Blandford	Director of Community Based Coordinated Care	lblandford@outercape.org	5083493131

Add/Del Rows	Sector Type	Organization Name	Name of Primary Contact	Title in Organization	Email Address	Phone Number
	Community Based Organizations	The Cape Cod Foundation	Dara Gannon	Director of Programs & Donor Services	DGannon@capecodfoundation.org	508-790-3040 x 113
+ -	Private Sector	Kinlin Grover	Ellie Claus	Agent	eclaus@kinlingrover.com	5082210961
+ -	Social Services	Cape Cod US Veterans Center	Jocelyn Howard	Vet Center Director	jocelyn.howard@va.gov	5087780124
+ -	Local Public Health Departments/Boards of Health	Town of Bourne - Board of Health	Terri Guarino	Health Agent	tguarino@townofbourne.com	508-759-0600 x 1513
+ -	Social Services	AIDS Support Group of Cape Cod	Tanya Kohli	Director Prevention & Screening	tkohli@asgcc.org	5087370197
+ -	Private Sector	Thirwood Place	Larry Lyford	Executive Director of Sales & Marketing	llyford@thirwoodplace.com	5087606520
+ -	Additional municipal staff (such as elected officials, planning, etc.)	Barnstable School Board	Barbara Dunn	Board Member	barbdunn71@gmail.com	
+ -	Additional municipal staff (such as elected officials, planning, etc.)	Town of Barnstable	Madeline Noonan	Director of Community Services	madeline.noonan@town.barnstable.ma.org	5088624768
+ -	Community-based organizations	B Free Wellness	Ayanna Parrent	Founder & Owner	bfreewellnessayanna@gmail.com	5086872664
+ -	Community-based organizations	YMCA Cape Cod	Stacie Peugh	President & CEO	speugh@ymcacapecod.org	7742515101
+ -	Social Services	Cape Cod Healthcare Interpreter Services	Cecilia Phelan-Stiles	Sr. Manger HR Communications	cpstiles@capecodhealth.org	5088627822
+ -	Regional Planning and Transportation agencies	Cape Cod Comission	Kristy Senatori	Executive Director	ksenatori@capecodcommission.org	5087741216
+ -	Housing	Homeless Prevention Council	Hadley Luddy	CEO	hadley@hpccapecod.org	5082559667
+ -	Regional Planning and Transportation agencies	Cape Cod Regional Transit Authority	Leah LaCross	Director of Planning & Grants	llacross@capecodrta.org	5087758504
+ -	Social Services	Falmouth Service Center	Elyse DeGroot	Deputy Director	elysed@falmouthservicecenter.org	5085482794
+ -	Additional municipal staff (such as elected officials, planning, etc.)	Town of Falmouth	Suzie Hauptmann	Director Falmouth Human Services	suzie.hauptmann@falmouthma.gov	5085480533
+ -	Private Sector	Cape Cod Healthcare, Inc	Kate Michaud	Executive Director, Oncology	Katie.Michaud@CapeCodHealth.org	5088625711

8a. Community Health Initiative

For Tier 2 and Tier 3 CHI Projects, is the the Applicant's CHNA / CHIP Advisory Board the same body that will serve as the CHI advisory committee as outlined in the Table 1 of the Determination of Need Community-Based Health Initiative Guideline (http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-chi-planning.pdf)?

(●) Yes ( ) No

9. Engaging the Community At Large

Thinking about the extent to which the community has been or currently is involved in the CCH & FH CHNA & IP 2020 - 2022 , please choose one response for each engagement activity below. Please also check the box to the left to indicate whether that step is complete or not. (For definitions of each step, please see pages 12-14 in the *Community Engagement Standards for Community Health Planning Guidelines* http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf).

	Inform	Consult	Involve	Collaborate	Delegate	Community - Driven / -Led
☒ Assess Needs and Resources	○	○	○	◉	○	○
Please describe the engagement process employed during the "Assess Needs and Resources" phase.	please see attached narrative					
☒ Focus on What's Important	○	○	○	◉	○	○
Please describe the engagement process employed during the "Focus on What's Important" phase.	please see attached narrative					
☒ Choose Effective Policies and Programs	○	○	○	◉	○	○
Please describe the engagement process employed during the "Choose Effective Policies and Programs" phase.	please see attached narrative					
☒ Act on What's Important	○	○	○	◉	○	○
Please describe the engagement process employed during the "Act on What's Important" phase.	please see attached narrative					
☒ Evaluate Actions	○	◉	○	○	○	○
Please describe the engagement process employed during the "Evaluate Actions" phase.	please see attached narrative					

10. Representativeness

Approximately, how many community agencies are currently involved in CCH & FH CHNA & IP 2020 - 2022 within the engagement of the community at large?

50 Agencies

Approximately, how many people were engaged in the process (please include team members from all relevant agencies and independent community members from the community at large)?

2,500 Individuals

Please describe the diversity of the people who have been engaged in the process both within the CHNA/CHIP Advisory Committee and the community at large. Explicitly describe how the process included diverse representation from different groups/individuals with varied gender, sexual orientation, race/ethnicity, disability status, international status and age. Please see page 10 and Appendix A of *the Community Engagement Standards for Community Health Planning Guideline* (http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf) for further explanation of this.

Many sources and data collection methodologies were used to obtain a comprehensive view of the health and health care needs of the region and the people served by CCH and FH. Input on the design of data collection instruments was solicited from public health experts, health care consumers, and persons representing vulnerable and medically underserved populations and minorities. Conscientious efforts were made to reach a wide-ranging population of residents during data collection to ensure broad representation of community interests and perspectives.
CCHC considered gender, sexual orientation, age, disability status, socioeconomic status, and geographic location in addition to race and ethnicity when soliciting participation in focus groups and the community survey. Deliberate outreach to members of medically underserved and low income and minority populations was conducted, and participants were represented in the stakeholder dialogues and key informant interviews. Organizations were chosen to represent those that serve a variety of residents and addressing various needs, including public health, housing and homelessness, public safety, and other human services.

Please describe the type of representation that was/is employed in the community engagement process and the rationale for that type of representation. For more information on types of representation and representativeness, please see Appendix A from the *Community Engagement Standards for Community Health Planning Guidelines (*http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf*)*. Please include descriptions of both the Advisory Board and the Community at large.

Both grass tops and grassroots approaches were employed in CCH & FH CHNA & IP 2020-2022.
To build our Advisory Board (the CCHC Community Health Committee) and ensure that it is a representative group, we used mainly a grass tops approach. Members of the current committee and CCHC staff worked together to analyze the current composition of the committee and identify gaps in service area, target population, geography, etc. We identified names and used existing relationships to bring new members on to the committee who would increase sectorial diversity and provide sufficient representation. This is an ongoing process and we continue to add members as appropriate.
Beyond the Advisory Board, the community at large was engaged at the grassroots level through focus groups and a community survey. When inviting participants to the focus groups and distributing the survey, we ensured that participants were representative of our community based on race, primary language, ethnicity, disability status and sexual orientation. The community at large was also engaged on a grass tops level through stakeholder dialogues, which are structured, in depth interviews with experts in our community who are strategically selected to be representative of our community.
As a result of this work, many individuals from diverse groups were included in our overall strategy and data collection that informed CCH & FH CHNA & IP 2020-2022. This approach allowed us to have many diverse voices at the table and encouraged innovation, improved existing work and ensured we heard from the many diverse voices in our community as possible. We plan to build on and refine this process as we move into our next CHNA.

To your best estimate, of the people engaged in CCH & FH CHNA & IP 2020 - 2022 approximately how many: Please indicate the number of individuals.

Number of people who reside in rural area	500
Number of people who reside in urban area	
Number of people who reside in suburban area	2,000

11. Resource and Power Sharing

For more information on Power Sharing, please see Appendix A from the *Community Engagement Standards for Community Health Planning Guidelines* (http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf).

By community partners, we mean agencies, organizations, tribal community, health departments, or other entities representing communities.

By Applicant partners, we mean the hospital / health care system applying for the approval of a DoN project

	Community Partners	Applicant Partners	Both	Don't Know	Not Applicable
Which partner hires personnel to support the community engagement activities?	○	◉	○	○	○
Who decides the strategic direction of the engagement process?	○	○	◉	○	○
Who decides how the financial resources to facilitate the engagement process are shared?	○	○	◉	○	○
Who decides which health outcomes will be measured to inform the process?	○	○	◉	○	○

12. Transparency

Please describe the efforts being made to ensure that the engagement process is transparent. For more information on transparency, please see Appendix A from the *Community Engagement Standards for Community Health Planning Guidelines*.

As we approach the community engagement process for our next CHNA, we are putting transparency front and center in our outreach. We reiterate that our goal of community engagement is to have a transparent process that brings as many diverse voices to the table as possible. Our goal is to keep an open relationship with the community as we move through this process. Some of the ways we have ensured transparency include distributing meeting minutes, hosting an open meetings to the public, publicizing widely the opportunities the community has to make their voice heard in this process, public speaking at community-based organizations meetings and events, and keeping a line of communication open with the community through the Community Benefits office. We make sure that everyone who was engaged in the process is updated with the results of our work.
Going forward, we will make sure that meetings have a virtual option, and these meetings are recorded and shared as appropriate.

13. Formal Agreements

Does / did the CCH & FH CHNA & IP 2020 - 2022 have written formal agreements such as a Memorandum of Agreement/ Understanding (MOU) or Agency Resolution?

○ Yes, there are written formal agreements ◉ No, there are no written formal agreements

Did decision making through the engagement process involve a verbal agreement between partners?

○ Yes, there are verbal agreements ◉ No, there are no verbal agreements

14. Formal Agreement Specifics

Thinking about your MOU or other formal agreement(s), does it include any provisions or language about:

	Yes	No	Don't Know	Doesn't Apply
Distribution of funds	○	○	○	◉
Written Objectives	○	○	○	◉
Clear Expectations for Partners' Roles	○	○	○	◉
Clear Decision Making Process (e.g. Consensus vs. Voting	○	○	○	◉
Conflict resolution	○	○	○	◉
Conflict of Interest Paperwork	○	○	○	◉

15. Document Ready for Filing

When the document is complete click on "document is ready to file". This will lock in the responses and date and time stamp the form. To make changes to the document un-check the "document is ready to file" box. Edit document then lock file and submit Keep a copy for your records. Click on the "Save" button at the bottom of the page.

To submit the application electronically, click on the"E-mail submission to DPH" button.

This document is ready to file: ☐ Date/time Stamp:

E-mail submission to DPH

E-mail submission to Stakeholders and CHI Advisory Board

When providing the Stakeholder Assessment Forms to the community advisory board members(individuals identified in Section 8 of this form), please include the following information in your correspondence with them. This will aid in their ability to complete the form:

A) Community Engagement Process: CCH & FH CHNA & IP 2020 - 2022

B) Applicant: Cape Cod Healthcare

C) A link to the DoN CHI Stakeholder Assessment

APPENDIX 5.02(a)

CHNA/CHIP SELF-ASSESSMENT SUPPLEMENT

9. Engaging the Community At Large

As stated, at the time of submission, Cape Cod Hospital (CCH) is in the final year of the current CHNA and are collecting data and engaging the community at large for the next CHNA, which will cover years 2023-2025. Our goal going forward is to move up the continuum through to the Community-Driven-Led level.

One of the most significant ways that Cape Cod Healthcare (CCHC) has engaged the community at large is through our response to Covid-19. As the community health safety net, CCHC has immersed itself in the many different ways our community is responding to the pandemic. We look to community leaders, as well as our own internal expertise, to strategize and act upon the ways we can care for our community during this crisis. We continue to work with many different community-based organizations and our local government to develop collaborative strategies to care for and protect Cape Codders. In our response to the Covid-19 crisis on Cape Cod, CCHC has engaged with the community and jumped in to help fight this pandemic whenever and wherever needed.

- CCHC is an active member of the Cape Cod Covid-19 Response Task Force, led by the Cape & Islands Legislative Delegation, the Cape Cod Chamber of Commerce and Barnstable County, with participation from municipal officials, first responders, community leaders and others to ensure economic recovery while protecting the health and safety of residents and visitors.
- CCHC has set up Covid testing, treatment and vaccine services with a health equity lens. For example, we responded to a local outbreak in our Brazilian community by ramping up our public health messaging around prevention and vaccine through partnership with a local leader in the Brazilian community on Cape Cod (Health Ministry) and producing targeted materials in Brazilian Portuguese. Overall, the vaccine effort resulted in 58,000 vaccines administered to our community through CCHC.
- CCH hosts a robust Monoclonal antibodies (mAbs) treatment clinic and was the first in the State to offer this service to the community. CCHC engaged in a comprehensive public awareness campaign around mAbs treatment that focused on traditionally underserved members of our community.

<u>Assess Needs and Resources:</u>

Needs and Resources were assessed by working with the community in a number of ways.

- Secondary Data Review: A comprehensive review of existing data drawn from national, state, and local sources included, but were not limited to, the U.S. Census Bureau, the Centers for Disease Control and Prevention, the Massachusetts Department of Public Health, and others. Types of data included demographics, vital statistics, public health surveillance, as well as self-reported health behaviors from large, population-based surveys such as the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS). The selection of secondary data points was generally based on the prior CHNAs to allow for examination of trends over time. However, additional secondary data sources were explored when major themes or issues arose from qualitative data collection. When available, data were stratified by age group or by income/poverty level to identify areas of disparity. Going forward, we will seek out specific COVID-related secondary data sources that examine how the pandemic has impacted our community.
- Community Health Survey: A community survey asking about community and individual health and health care needs was developed and made available on-line and on paper to residents of Barnstable County. Both formats were available in English, Spanish, and Portuguese. The survey included questions that focused on residents' perceptions of their own health, the health of their community, health care utilization, and social needs in the community. Community interest and participation went beyond our expectations and led to a total of 2,011 people completing the survey.

- Focus Groups: Two focus groups, one conducted in Spanish and one in Portuguese, were held with residents to gather information about the community, health challenges and needs, existing services, and suggestions for the future. These specific language groups were targeted based upon data collection gaps identified in the prior CHNA process. A total of 20 residents participated in the focus groups. Stipends and meals were made available.
- Community Stakeholder Dialogs: Two stakeholder dialogues were held with staff from a broad array of agencies and organizations actively working in the health and human services sectors of Barnstable County. These facilitated small- and large-group discussions focused on health in the community and services in the community. Approximately 70 people attended these sessions.
- Key Informant Interviews: Phone interviews with community stakeholders, were conducted with 25 community leaders from organizations across all of Barnstable County, representing health centers, public safety organizations, housing organizations, tribal leaders, and other human service groups. Key informants were identified for participation based on their in-depth knowledge of the health needs and resources of the region. Discussions focused on health strengths and needs in the community and opportunities and challenges to addressing community needs. Participants were also asked to describe organizational partnerships within Barnstable County, perceptions of community services, and perceptions of CCHC.

Focus on What's Important

In early February 2019 the consulting group HRiA led a facilitated process with leadership from Cape Cod Healthcare and community stakeholders including Barnstable County Human Services and behavioral health and infectious disease representatives from CCHC, to identify the priorities, goals and objectives for the Strategic Implementation Plan (SIP). HRiA presented the key health issues identified in the CCH & FH CHNA & IP 2020-2022 project, including the magnitude and severity of these issues and their impact on priority populations.

Choose Effective Policies and Programs

HRiA also facilitated a discussion with CCHC leadership and community stakeholders to evaluate possible priorities based on key criteria outlined in Figure 1.

FIGURE 1: CRITERIA FOR PRIORITIZATION

RELEVANCE *How Important Is It?*	**APPROPRIATENESS** *Should We Do It?*	**IMPACT** *What Will We Get Out of It?*	**FEASIBILITY** *Can We do It?*
• Burden (magnitude and severity, economic cost; urgency of the problem) • Community concern • Focus on equity and accessibility	• Ethical and moral issues • Human rights issues • Legal aspects • Political and social acceptability • Public attitudes and values	• Effectiveness • Coverage • Builds on or enhances current work • Can move the needle and demonstrate measurable outcomes • Proven strategies to address multiple wins	• Community capacity • Technical capacity • Economic capacity • Political capacity/will • Socio-cultural aspects • Ethical aspects • Can identify easy short-term wins

Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, the group decided on the five priority areas listed below. The level of feedback and data from the assessment led the group to also include the aging population and healthcare access as cross-cutting themes to be included in objectives and/or strategies in each of the priority areas chosen.

Priorities Areas:

1. Physical Health Conditions
2. Behavioral Health

3. Transportation

4. Housing

5. Workforce Development – This priority emerged during the planning process

Cross-cutting themes to be represented in each of the above priority areas:

- Aging Population
- Healthcare Access

Act on What's important

Later in February 2019, HRiA led a Strategic Implementation Plan planning session that included mapping current and emerging programs and initiatives against these needs, as well as decision-making regarding which existing programs and initiatives would be continued and what new programs or initiatives would be developed.

Evaluate Actions

The resulting plan is included in the CCH & FH CHNA & IP 2020-2022 and is reviewed annually and adjusted to accommodate revisions that merit attention. This evaluation process is led by CCHC leadership and the Community Health Committee.

APPENDIX 5.03

COMMUNITY ENGAGEMENT PLAN

Massachusetts Department of Public Health
Determination of Need
Community Health Initiative
Community Engagement Plan

Version: 8-1-2017

The Community Engagement Plan is intended for those Applicants with CHIs that require further engagement above and beyond the regular and routine CHNA/CHIP processes. For further guidance, please see the *Community Engagement Standards for Community Health Planning Guidelines* and its appendices for clarification around any of the following terms and questions.

All questions in the form, unless otherwise stated, must be completed.

Approximate DoN Application Date: 03/01/2022

DoN Application Type: Hospital/Clinic Substantial Capital Expenditure

Applicant Name: Cape Cod Healthcare

What CHI Tier is the project? ○ Tier 1 ○ Tier 2 ◉ Tier 3

1. Community Engagement Contact Person

Contact Person: Jennifer Cummings

Title: Associate Director of Development & Community Benefits

Mailing Address: 27 Park Street

City: Hyannis

State: Massachusetts

Zip Code: 02601

Phone: 5088627849

Ext:

E-mail: jrcummings@capecodhealth.org

2. Name of CHI Engagement Process

Please indicate what community engagement process (e.g. the name DoN CHI Initiative associated with the CHI amount) the following form relates to. This will be use as a point of reference for the following questions.
(please limit the name to the following field length as this will be used throughout this form):

CCHC DoN CHI 2022

3. CHI Engagement Process Overview and Synergies with Broader CHNA /CHIP

Please briefly describe your overall plans for the CHI engagement process and specific how this effort that will build off of the CHNA / CHIP community engagement process as is stated in the *DoN Community-Based Health Initiative Planning Guideline.*

Our CHI engagement process is occurring in tandem with our work on the next CCH & FH CHNA. We are enhancing the community engagement strategy used for our tri-annual CHNA to include the CHI regulations. There are four main ways we are engaging the community, and all of the work is done through a diversity, equity and inclusion (DEI) lens.

1. Community Health Committee - CCHC is utilizing an advisory committee to oversee the community engagement process. The same committee that will direct the CHI process and is made up of community members who are diverse along the lines of ethnicity, service area and geography. We have recently done extensive recruitment to ensure we have representatives across all the stakeholders that are required for the CHI process.

2. Key Stakeholder Interviews – Srategically chosen, in-depth interviews with community experts working on specific issues facing our area.

3. Focus groups, listening sessions and other group settings – We will hold numerous focus groups to get the perspective of certain specific groups in our community. Here we employ incentives to compensate participants for their valuable information they are providing. We will conduct at least one group in Spanish, and one in Portuguese.

4. Community Health Survey - CCHC will conduct a community health survey which will be distributed online and paper, as well as in three languages.

Through these efforts, and with the help of the advisory committee, we are committed to engaging every sector of our community.

4. CHI Advisory Committee

In the CHNA/CHIP Self Assessment, you listed (or will list) the community partners that will be involved in the CHI Advisory Committee to guide the CCHC DoN CHI 2022 . As a reminder:

For Tier 2 DON CHI Applicants: The CHI Advisory Committee is tasked with helping select DoN Health Priorities based on the CHNA / CHIP unless the Applicant is directed by DPH to conduct additional community engagement. If so, the advisory committee's role is to guide that additional work.

For Tier 3 DON CHI Applicants: The CHI Advisory Committee is to select DoN Health Priorities based on**, but not exclusive to,** the CHNA / CHIP. This includes the additional community engagement that must occur to develop the issue priorities.

5. Focus Communities for CHI Engagement

Within the CCHC DoN CHI 2022 , please specify the target community(ies), please consider the community(ies) represented in the CHNA / CHIP processes where the Applicant is involved.

Add/Del Rows	Municipality	If engagement occurs in specific neighborhoods, please list those specific neighborhoods:
+ -	Barnstable	
+ -	Bourne	
+ -	Brewster	
+ -	Chatham	
+ -	Dennis	
+ -	Eastham	
+ -	Falmouth	
+ -	Harwich	
+ -	Mashpee	
+ -	Orleans	
+ -	Provincetown	
+ -	Sandwich	
+ -	Truro	
+ -	Wellfleet	
+ -	Yarmouth	

6. Reducing Barriers

Identify the resources needed to reduce participation barriers (e.g., translation, interpreters, child care, transportation, stipend). For more information on participation barriers that could exist, please see Appendix A from the *Community Engagement Standards for Community Health Planning Guidelines* http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf

We have identified potential barriers to engagement for our community members, and will continue to work with our advisory committee and participants to identify barriers and address them as they arise to ensure sufficient representation from all groups in our community. Barriers we have identified include:

- Trust – An issue identified for our immigrant community was distrust of sharing information with others, particularly healthcare and governmental organizations. We acknowledge this is a hard barrier to overcome and will utilize trusted community leaders to recruit participants and make sure we are providing as much information as possible about data collection and how we plan to use the information we gather. Groups and interviews will be facilitated by an independent consultant and/or a trusted member of the particular community.

- Capacity – Our participants are dealing with a myriad of issues that may leave them with little to no capacity to participate. We are committed to acknowledging the value of each participant's time by providing compensation (i.e., monetary, food) as well as information sharing/education and virtual opportunities for engagement. Events will be held in central community locations that are familiar and trusted to particular groups in our community.

- Rural isolation – Barnstable County is large, with many diverse towns. Part of the County is rural, and virtual options for participation will help engagement in these areas.

- Non-English speaking participants – We have a strong team of interpreter services ready to serve this population. Survey materials, focus groups and interviews will be offered in the three main languages spoken in our community: English, Portuguese and Spanish.

7. Communication

Identify the communication channels that will be used to increase awareness of this project or activity:

We have worked with the CCHC marketing department, as well as an outside consultant, to develop a culturally competent, comprehensive marketing and communication plan to create awareness of this project. Communication channels include social media, word of mouth via trusted community leaders, print ads, media stories, radio, website and utilizing relationships across our community to spread the word.
Materials will be designed in "plain talk," so they are easily understood, and interpreters (including ASL) will be available and utilized throughout the process. We are continually refining our communication to be culturally competent, and constantly work on identifying how unconscious bias, equity and social justice are impacting our engagement process.

8. Build Leadership Capacity

Are there opportunities with this project or activity to build community leadership capacity? (●) Yes ( ) No

If yes, please describe how.

Throughout the CHI process, and in our day-to-day work, CCHC staff look to the leaders in our community to help drive initiatives. Throughout every aspect of the CHI and Community Engagement process, we strategize with our advisory committee to identify additional potential community leaders and partners to determine how these individuals can be an integral part of our work. We consider networks and community partners to determine how we can bolster community leadership capacity. Examples include:
- Community leaders organizing a listening session with a professionally trained facilitator. These community leaders are empowered to make engagement decisions based on their expertise of the population and issue, and are offered financial assistance / stipends to provide a tangible recognition of value for their work and knowledge sharing.
- Community members serving on an allocation committee and being part of a group decision making process regarding funding.
These activities build decision-making capacity, foster involvement and innovation, and engage community members as equal and valued partners.

9. Evaluation

Identify the mechanisms that will be used to evaluate the planning process, engagement outcome, and partner perception and experience:

It is necessary to continuously evaluate our community engagement process to ensure quality improvement. CCHC staff uses the Community Health Planning Guideline to ensure we are meeting the engagement requirements of the CHI process and employs the recommended best practices. We plan to utilize the tools laid out on page 15 of the Community Health Planning Guideline, particularly "Process and outcome constructs for evaluation community-based participatory research projects: A matrix of existing measures" to evaluate our activities.

CCHC also works with a consultant (Health Resources in Action, HRiA) on our community engagement. HRiA will facilitate focus groups and interviews, and will measure participant experience.

At this point we have engaged, or have plans on how we will engage, all of the required stakeholders as outlined in the Community Health Planning Guideline. All of the minimum organization types are represented on our advisory committee. We work closely with the advisory committee to solicit feedback about the community engagement outcomes as well as the community's perception of our work.

10. Reporting

Identify the mechanisms that will be used for reporting the outcomes of this project or activity to different groups within the community:

Residents of Color

CCHC will target press releases to media outlets that reach residents of color. We will also post information to social media sites, coalition websites and community pages utilized by residents of color. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key partnerships include: Barnstable No Place For Hate, The MLK Action Committee, NAACP Cape Cod, Amplify POC Cape Cod, B Free Wellness, members of the faith community.

Residents who speak a primary language other than English

CCHC will target press releases to media outlets that reach residents who speak a primary language other than English. We will also post information to social media sites, coalition websites and community pages utilized by residents who speak a primary language other than English. We have a robust interpreter and translation services program to utilize. Press releases, communications and materials will be translated and available in the three main languages spoken in our region: English, Spanish and Portuguese. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key existing partnerships include: Health Ministries, CCHC Interpreter Services, Barnstable County Food Access Community Leadership Team, members of the faith community.

Aging population

As Barnstable County is the third oldest county in the country in terms of age, we have a large community focused on issues for the aging population. CCHC will target press releases to media outlets that reach the aging population. We will also post information to social media sites, coalition websites and community pages utilized by the aging population. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key existing partnerships include: Senior Centers, Samaritans of the Cape & Islands, Alzheimer's Family Caregiver Support Center, Barnstable County.

Youth

CCHC will target press releases to media outlets that reach youth and those who work with youth. We will also post information to social media sites, coalition websites and community pages utilized by youth and those who work with youth. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key existing partnerships include: Barnstable School Department, Barnstable No Place For Hate, Cape Cod YMCA, Cape Cod Children's Place, Cape Cod Voices.

Residents Living with Disabilities

CCHC will target press releases to media outlets that reach residents with disabilities. We will also post information to social media sites, coalition websites and community pages utilized by residents with disabilities. We will recruit and work with trusted community leaders to serve as ambassadors to this population. We will ensure materials are created in "plain talk" to be easily understandable and materials will be accessible on our website. Key partnerships include local libraries, Cape Abilities, Latham Center, Cape Cod CORD, Riverview School.

GLBTQ Community

CCHC will target press releases to media outlets that reach our LGBTQI+ community. We will also post information to social media sites, coalition websites and community pages utilized by the LGBTQI+ community. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key partnerships include: Duffy Health Center, Helping Our Women, PFLAG Cape Cod, Barnstable No Place for Hate.

Residents with Low Incomes

CCHC will target press releases to media outlets that reach residents with low incomes. We will also post information to social media sites, coalition websites and community pages utilized by residents with low incomes. We will recruit and work with trusted community leaders to serve as ambassadors to this population. Key existing partnerships include: Falmouth Service Center, Homeless Prevention Council, Federally Qualified Health Centers, Cape Cod Community Action Committee, The Family Pantry of Cape Cod, Health Imperatives.

Other Residents

CCHC will target press releases to media outlets that broadly reach the Cape Cod community. We will also post information to social media sites, coalition websites and community pages utilized by the majority of our community. We will recruit and work with trusted community leaders to serve as ambassadors. As new target groups emerge, we will work on a targeted communication plan with the goal of reaching as many diverse community members as possible.

11. Engaging the Community At Large

Which of the stages of a CHNA/CHIP process will the CCHC DoN CHI 2022 focus on? Please describe specific activities within each stage and what level the community will be engaged during the CCHC DoN CHI 2022 . While the step(s) you focus on are dependent upon your specific community engagement needs as a result of your previous CHNA/CHIP work, for tier 3 applicants the CHI community engagement process must at a minimum include the "Focus on What's Important," "Choose Effective Policies and Programs" and "Act on What's Important" stages. (For definitions of each step, please see pages 12-14 in the *Community Engagement Standards for Community Health Planning Guidelines* http://www.mass.gov/eohhs/docs/dph/quality/don/guidelines-community-engagement.pdf).

	Inform	Consult	Involve	Collaborate	Delegate	Community - Driven / -Led
☒ Assess Needs and Resources	○	○	○	◉	○	○
Please describe the engagement process employed during the "Assess Needs and Resources" phase.	CCHC conducted a comprehensive needs assessment to publish the 2020-2022 CCH & FH CHNA. This process is outlined in the Community Engagement Self-Assessment Form.					
☒ Focus on What's Important	○	○	○	◉	○	○
Please describe the engagement process employed during the "Focus on What's Important" phase.	Trained facilitators led a process with leadership from CCHC, the CHC Advisory Board and community stakeholders to identify the priorities, goals and objectives for a Strategic Implementation Plan. Key issues identified were presented to the community, including information on the magnitude and severity of these issues and their impact on priority populations. Community feedback, advice and recommendations were discussed.					
☒ Choose Effective Policies and Programs	○	○	○	◉	○	○
Please describe the engagement process employed during the "Choose Effective Policies and Programs" phase.	Trained facilitators led a discussion with CCHC leadership, the CHC Advisory Board and community stakeholders to evaluate possible priorities based on relevance, appropriateness, impact and feasibility. Through thoughtful consideration of the data presented, the prioritization criteria and the knowledge of the existing and planned programs already in place, the group decided on priorities for effective policies and programs.					
☒ Act on What's Important	○	○	○	◉	○	○
Please describe the engagement process employed during the "Act on What's Important" phase.	CCHC leadership, the advisory committee and community stakeholders engaged in a Strategic Implementation Planning session that mapped current and emerging programs and initiatives against identified community needs. This led to collaborative decision making on which programs and initiatives to act on.					
☐ Evaluate Actions						

12. Document Ready for Filing

When the document is complete, click on "document is ready to file". This will lock in the responses, and Date/Time stamp the form. To make changes to the document, un-check the "document is ready to file" box. Edit the document, then lock file and submit. Keep a copy for your records. Click on the "Save" button at the bottom of the page.

To submit the application electronically, click on the"E-mail submission to DPH" button.

This document is ready to file: ☐ Date/Time Stamp:

E-mail submission to DPH

APPENDIX 5.04

Community Health Needs Assessment and Implementation Plan

Cape Cod Healthcar

Community Health Needs Assessment Report and Implementation Plan 2020-2022

Cape Cod Hospital & Falmouth Hospital

Contents

Introduction

About Cape Cod Healthcare

Cape Cod Healthcare is the leading provider of healthcare services for residents and visitors of Cape Cod, Massachusetts. With more than 450 physicians, 5,300 employees and 790 volunteers, Cape Cod Healthcare (CCHC) includes two acute care hospitals, the Cape's leading provider of homecare and hospice services (VNA), a skilled nursing and rehabilitation facility (JML Care Center), an assisted living facility (Heritage at Falmouth), an ambulatory surgery center, and numerous primary and specialty care physician practices along with many other health programs. To fulfill its mission of coordinating and delivering the highest quality, accessible health services, which enhance the health of all Cape Cod residents and visitors, Cape Cod Healthcare annually contributes over $27 million in uncompensated care, community health improvement, community benefits, health professions education, subsidized health services, research, and community education and awareness.

Mission Statement

To coordinate and deliver the highest quality, accessible health services, which enhance the health of all Cape Cod residents and visitors.

Vision Statement

We will be the health service provider of choice for Cape Cod residents by achieving and maintaining the highest standards in healthcare delivery and service quality. To do so, we will partner with other health and human service providers as well as invest in needed medical technologies, human resources and clinical services. Above all, we will help identify and respond to the needs of our community.

Values Statement

To be compassionate, respectful and professional in the way we deliver care. To be relentless in pursuing the highest standard of quality through continuous improvement, emphasizing the power of teamwork. To be honest, ethical and open in all our relationships. To be responsible stewards of the community`s resources by working efficiently and cost effectively. To serve all without regard to sex, race, creed, residence, national origin, sexual orientation or ability to pay

Cape Cod Healthcare Community Benefits

Cape Cod Healthcare, Inc., through its Community Benefits initiative, is committed to enhancing the quality of and access to comprehensive healthcare services for all Cape Cod residents. Through continuous assessment of community needs, coordinated planning and the allocation of resources, this commitment includes a special focus on the unmet needs of the financially disadvantaged and underserved populations. We will assume a leadership role in collaborative efforts joining our resources, talent, and commitment with that of other providers, organizations and community members.

Community Health Needs Assessment and Strategic Implementation Plan Summary

Improving the health of a community is essential to enhancing the quality of life for residents in the region and supporting future social and economic well-being. To fulfill the federal IRS requirements and the Massachusetts Attorney General Community Benefits Guidelines and as a continuing best practice in community health, Cape Cod Healthcare (CCHC) engaged in a community health planning process to improve the health of residents in Barnstable County, Massachusetts. This effort included two phases: (1) a community health needs assessment (CHNA) to identify the health-related needs and strengths of the region and (2) a strategic implementation plan to identify major health priorities, develop goals, select strategies and identify partners to address these priority issues across the region.

Methods

The community health needs assessment was guided by a participatory, collaborative approach, which examined health in its broadest sense. Qualitative and quantitative methods were implemented throughout this assessment. This process included integrating existing quantitative, secondary data on social, economic, and health issues in the region with qualitative methods to get an understanding of individual thoughts and opinions from the following methods:

- 1 community health survey which was administered online and disseminated through multiple channels to individuals who live or work in Barnstable County. The survey was translated and distributed in English, Portuguese and Spanish. Community interest and participation went beyond our expectations and led to a total of 2,011 people completing the survey.
- 2 focus groups; one in Portuguese and one in Spanish, with residents in service-related occupations, and residents in the healthcare field.
- 2 community stakeholder dialogs, which were conducted with stakeholders and human/social service providers in the community.
- 25 interviews with community stakeholders, including health centers, public safety, housing and tribal organizations and human service groups.

CHNA Key Findings

The following key health issues emerged most frequently from a review of the available data and community input and were considered in the selection of the Strategic Implementation Plan (SIP) health priorities:

- **Housing**: All stakeholders described the cost and availability of housing as a major concern in Barnstable County. Housing or homelessness was most highly selected as the top social concern for the community (65.5% of survey respondents). This concern impacts residents' ability to afford child care, food, and other necessities. The populations perceived as at-risk include: seasonal employees, families with children, senior citizens, and veterans. It also impacts the retention of healthcare professionals, some of whom also struggle to afford housing. Other housing related concerns include: housing quality (e.g., mold), lack of year-round housing, and lack of home ownership.

- **Transportation**: Private and public transportation were cited as concerns, with 29% of survey respondents saying that the availability of public transportation was high concern. Bridges and roads struggle to support the population influx in the summer. There was discussion about the number of routes and lines available through the public transit system; mostly centered on sufficiency. Transportation is particularly challenging when discussing healthcare access for residents. The majority

(81.5% of survey respondents) of working population drives alone to and from work, while few utilize public transportation (1.4%), however access to a vehicle is not universal among Barnstable County residents.

- **Seasonal Economy and Employment Variation**: There is high employment in the summer and low employment during in the winter. Many residents must earn the majority of their annual income in a few months leading to financial insecurity. The lack of year-round professional jobs deters young professionals from remaining in the area. 'Employment' was the third most frequently selected social concern by survey respondents as impacting the community in which they live (44.5% of respondents).

- **Behavioral Health (including Substance Use and Mental Health)**: Depression, anxiety, and substance use disorder were named as primary concerns. Substance use was 2nd most selected top health concern for the community (57.7% of survey respondents). 46.4% of survey respondents said mental health issues was a top health concern for the community and 29.5% said it was for themselves. Many said poor access is not due to lack of resources, but a need for more resources (i.e., there are many treatment facilities, but they are constantly at capacity). While stakeholders agreed that risk for mental and behavioral health problems transcend age groups, transitional-aged youth were perceived as having the highest risk.

- **Aging Population:** 'Aging health concerns' was most frequently selected as a top health concern impacting the community (72.6% of survey respondents). The age distribution of the Barnstable County population skews older than for the state (Population aged 65 years and older is 15.1% for MA and 27.8% for Barnstable County). Further exploration of the population age 65 years and older show that several towns have sizeable proportions of their population who are considerably older than 65, with rates that are three times that of the state overall. Primary aging concerns were dementia, Alzheimer's, and social isolation, with higher isolation risk for residents living alone and/or without a regular caregiver. Other aging concerns include elder abuse, fall-related injuries, and susceptibility to communicable diseases (e.g., influenza). Availability of affordable housing for older adults and availability of transportation for older adults were also cited as issues of "high concern".

- **Physical Health Conditions**: Top health concerns for the community cited by respondents included chronic health conditions (43.8% of respondents) and cancer (36.4% of respondents). Cancer incidence is higher than the state for most types. Mortality is higher than the state for breast, prostate, and skin cancers. The rate of Cardiovascular-related Emergency visits among Barnstable County residents is notably higher than for the state (729.2 per 100,000 vs. 379.0 per 100,000) and the rate of Diabetes-related Emergency visits among Barnstable County residents is slightly higher than for the state (159.9 per 100,000 v 129.8 per 100,000).

- **Healthcare Access**: 60% percent of survey respondents stated barriers while 40% said no barriers. For those who cited barriers, they included long waits (28.9%), cost of care (21.3%), and difficulty with scheduling appointments (18.3%). 22.2% said transportation to medical appointments was of high concern.
  Access to Providers (specialists and primary care providers); 45.2% said access to primary care provider (PCP) is a top health concern for the community and 31.8% said for themselves. The population to provider ratios for primary care physicians, mental health providers, and dentists is similar in Barnstable County and the state.

Priority Health Issues for the Strategic Implementation Plan

In early February 2019, HRiA led a facilitated process with leadership from Cape Cod Healthcare and community stakeholders including Barnstable County Human Services and behavioral health and infectious disease representatives from CCHC, to identify the priorities, goals and objectives for the Strategic Implementation Plan (SIP). HRiA presented the key health issues identified in the FY2020-FY2022 community health needs assessment (CHNA) project, including the magnitude and severity of these issues and their impact on priority populations. HRiA facilitated a discussion with CCHC leadership and community stakeholders to evaluate possible priorities based on key criteria outlined in Figure 1.

FIGURE 1: CRITERIA FOR PRIORITIZATION

RELEVANCE *How Important Is It?*	**APPROPRIATENESS** *Should We Do It?*	**IMPACT** *What Will We Get Out of It?*	**FEASIBILITY** *Can We do It?*
• Burden (magnitude and severity, economic cost; urgency of the problem) • Community concern • Focus on equity and accessibility	• Ethical and moral issues • Human rights issues • Legal aspects • Political and social acceptability • Public attitudes and values	• Effectiveness • Coverage • Builds on or enhances current work • Can move the needle and demonstrate measurable outcomes • Proven strategies to address multiple wins	• Community capacity • Technical capacity • Economic capacity • Political capacity/will • Socio-cultural aspects • Ethical aspects • Can identify easy short-term wins

Through thoughtful consideration of the data presented, the prioritization criteria and knowledge of the existing and planned programs already in place, the group decided on the five priority areas listed below. The level of feedback and data from the assessment led the group to also include the aging population and healthcare access as cross-cutting themes to be included in objectives and/or strategies in each of the priority areas chosen.

Priorities Areas for the 2019-2021 Strategic Implementation Plan (SIP):

1. Physical Health Conditions
2. Behavioral Health
3. Transportation
4. Housing
5. Workforce Development – This priority emerged during the planning process

Cross-cutting themes to be represented in each of the above priority areas:

- Aging Population
- Healthcare Access

Later in February 2019, HRiA led a SIP planning session that included mapping current and emerging programs and initiatives against these needs, as well as decision-making regarding which existing

programs and initiatives would be continued and what new programs or initiatives would be developed. The resulting plan is meant to be reviewed annually and adjusted to accommodate revisions that merit attention.

Vulnerable Populations Addressed by this Strategic Implementation Plan

- Residents across Barnstable County with focus on specific regions of the Cape most acutely impacted by geographic isolation, access to services, transportation barriers, and economic opportunity)
- Residents over the age of 65
- Transitional-aged youth (18-24 yrs. old)
- Low-income individuals and families
- Populations managing mental health and/or behavioral health disorders
- Non-English speaking individuals

Social Determinants of Health Issues Addressed by this Strategic Implementation Plan

- Employment, education and economic opportunities
- Housing
- Transportation
- Access to Healthy Food, Nutrition

Rationale for Priority Community Needs Not Addressed

Seasonal Economy & Employment Variation: CCHC is best positioned to support and collaborate on initiatives that aim to develop the regional healthcare workforce as part of this SIP. In this way, we are hoping to have a positive influence on the economy and employment opportunities in Barnstable County. Addressing the complex challenges created by a seasonal economy and employment variation in the region in industries outside of healthcare is beyond the core competencies of CCHC and our mission.

Community Health Needs Assessment (CHNA) Introduction and Background

Purpose of the Community Health Needs Assessment

Cape Cod Healthcare (CCHC) is the leading provider of health care services for residents and visitors of Cape Cod. With more than 450 physicians, 5,300 employees, and 790 volunteers, CCHC is the parent company of Cape Cod Hospital and Falmouth Hospital, the two acute care hospitals serving year-round residents and visitors to the region. CCHC is also the Cape's principal provider of homecare and hospice services (Visiting Nurse Association of Cape Cod). CCHC operates a skilled nursing and rehabilitation facility (JML Care Center), an assisted living facility (Heritage at Falmouth), and numerous health programs.

CCHC collaborates with community partners across the region to assess community needs, identify promising programs, and implement strategies to improve people's health. Through an open and competitive *Annual Strategic Grants* program, CCHC funds projects addressing a variety of health needs, prioritizing efforts that focus on chronic and infectious disease, behavioral health, access to care, and disease prevention and wellness. Additionally, CCHC has invested in new and expanded hospital programs in areas such as cancer support, chronic disease self-management, case management for individuals living with HIV/AIDS, suicide prevention, and support for new families, among others. CCHC community benefits' funding also supports medical interpreter services for limited English-speaking patients, hospital social workers and case managers, and financial counselors. Finally, CCHC plays a leadership role through participation in, among others, the Barnstable County Economic Development Council, the Barnstable County Human Services Advisory Council, the Barnstable County Regional Substance Use Council, the Cape Cod Chamber of Commerce, and the Cape and Islands Community Health Area Network (CHNA 27) Steering Committee.

Cape Cod Hospital (CCH) and Falmouth Hospital (FH) share the service area of Barnstable County, also known as Cape Cod, and jointly conduct a community health needs assessment (CHNA) every three years. CCH and FH have released two prior joint Community Health Needs Assessment Reports and Implementation Plans (in 2014 and 2017).

The purpose of the CHNA is to undertake a data-driven and community-led process that identifies and prioritizes the health needs of residents of the region based on the frequency, size, scope, and magnitude of the issues. In addition, the CHNA process provides CCH and FH the opportunity to:

- Identify vulnerable, disadvantaged, and medically underserved target populations
- Identify key areas of significant community need and vulnerable populations
- Examine the impact and role of social determinants of health in the community
- Monitor regional health data and maintain an inventory of available resources
- Facilitate the development of multi-year implementation strategies to guide hospital community health initiatives and community investments to improve health
- Promote partnership and dialogue between the hospitals and community organizations

In 2014, the Internal Revenue Service (IRS) established requirements for non-profit hospitals to conduct health needs assessments and develop approaches to address identified needs. These requirements provide specific guidance for how hospitals assess and prioritize health needs in their service area and identify specific implementation strategies to address those needs.

In February 2018, the Massachusetts (MA) Attorney General released updated Community Benefits Guidelines for Non-Profit Hospitals. These new guidelines include recommendations to ensure that CHNAs align with the IRS requirements. In response to these new guidelines, CCHC collected and examined data related to the social determinants of health as part of the 2019 CHNA process. The inclusion of such data encourages communities to define health needs broadly including the social, behavioral, and environmental factors that impact health in the community.

CCHC's CHNA work has also informed the prior CHNA processes conducted by Spaulding Rehabilitation Hospital Cape Cod, a sub-acute hospital operating in Barnstable County. In both 2013 and 2016, CCHC shared its preliminary CHNA report and data with Spaulding and involved Spaulding in data collection efforts. Spaulding leveraged these resources to develop its implementation strategies in prior years. CCHC and Spaulding have also identified opportunities to collaborate beyond the CHNA process. For example, CCHC and Spaulding are collaborative partners with the steering committee for *Healthy Aging*

Cape Cod under the leadership of Barnstable County Health and Human Services where assessment and planning for the region include municipal governmental organizations.

Project Collaborators

CCHC extends a special thanks to the Barnstable County Department of Human Services, the Cape Cod Commission, the Cape Cod Regional Transit Authority, and the Housing Assistance Corporation on Cape Cod for their contributions of data and research for this CHNA. The Visiting Nurse Association of Cape Cod's Public Health and Wellness Division provided a part-time project staff member to assist the CCHC Community Benefits Director with organizing assessment activities and synthesizing and disseminating information throughout the project.

More than 30 health, human, and public service agencies from across Barnstable County contributed to the assessment including organizations representing low-income, vulnerable, and medically underserved residents. Through various engagement activities, these organizations validated data findings, identified information gaps, identified specific target populations and populations experiencing health inequities, and offered input for health improvement strategies. For a complete list of participating organizations and the resident populations they represent, please see **Appendix A**.

Truven Health Analytics, a subsidiary of IBM Watson Health, served as a consultant on the project to collect and analyze publicly available data on the physical health, social conditions, behavioral risk factors, and environmental factors that influence the health of residents of Barnstable County.

Health Resources in Action (HRiA), a Boston-based public health research firm, provided valuable contributions to this project through the facilitation of community engagement activities such as stakeholder forums and key informant interviews, administration of the community health survey, analysis and synthesis of data, and summary of the findings shared in this report.

Role and Review of Previous Community Health Needs Assessments

Previously released CCH and FH CHNA Reports and Implementation Plans spanning FY2014-FY2016 and FY2017-FY2019 serve as the foundation for this FY2020-FY2022 CHNA project(feedback from community residents was encouraged after the release of each report, to-date CCHC has not received any written comments on the information distributed.)

Chronic and infectious disease, access to care, and behavioral health remained consistent concerns for Barnstable County in the previous assessments. These issues are longstanding and complex. Solutions addressing these issues require significant resources and community-wide collaboration and support.

Inclusion of disease prevention and wellness as a priority in the FY2017-FY2019 CHNA report represented a shift in focus and a commitment to support upstream prevention of disease through education and improving risk factors that influence health. The FY2020-FY2022 CHNA will continue to evolve the assessment process by identifying and analyzing social determinants of health as critical drivers of health outcomes.

The CHNA process and report ultimately inform the development of multi-year implementation strategies to guide hospital community health initiatives and investments to improve health. Since the

release of the FY2017-FY2019 CHNA in September of 2016, CCHC has invested more than $50 million in community health initiatives including over $2 million in grants to local non-profit organizations.

In addition to grants, other CCHC community investments have included charity care for vulnerable populations, new and expanded hospital-based programs, support and strategic collaboration with Federally Qualified Health Centers (FQHCs), leadership participation in regional health and human service initiatives, and workforce development partnerships that addressed workforce gaps in the regional health care sector.

Examples of hospital-based initiatives at CCH and FH:

- Expanded oncology programs including support groups and counseling services, nutrition and dietary support, physical conditioning and wellness programs, and screening initiatives for the uninsured
- Launched a Congestive Heart Failure Clinic providing individuals with support to self-manage chronic diseases
- Implemented a Recovery Specialists program in CCH and FH emergency departments assisting patients with substance use disorders
- Increased behavioral health services through providing support and peer groups, creating a Community Crisis Line, and establishing partnerships in the community through the Zero Suicide initiative to reduce suicides in the region
- Created local Moms Do Care program; an integrated system of medical and behavioral health care including access to medication assisted treatment (MAT) and recovery support throughout the pregnancy and postpartum period through the use of peer recovery coaches

Examples of new and expanded community programs supported through CCHC community benefits grants included:

- Expanded MAT and Office-Based Addiction Treatment (OBAT) programs at FQHCs across the region
- Launched new education and awareness campaigns and programs to address tick borne illness, HPV, Hepatitis C, and suicide
- Developed new models expanding access to healthy and locally sourced food to low-income seniors, families, and individuals
- Increased support and counseling services for caregivers of individuals with Alzheimer's disease and with mental health and substance use disorders

Although progress has been made in each health priority area, challenges exist to fully address some issues or achieve anticipated outcomes. Areas in need of continued focus include:

- Recruitment of health care providers to the region
- Development of information systems for direct electronic referrals between health care providers and community-based programs that support health (e.g., CCH, FH, and Physician Practices are implementing Epic in 2020)
- Created local Moms Do Care program that uses an integrated system of medical and behavioral health care including access to medication assisted treatment (MAT) and recovery support throughout the pregnancy and postpartum period through the use of peer recovery coaches
- Surveillance and reporting of regional disease information
- Implementation of evidence-based practices for prevention and disease management
- Engagement of patients to self-manage chronic diseases and reduce risky health behaviors

The successes and challenges of implementing strategies to address health priorities identified in previous CHNAs are recognized and woven into the assessment, analysis, and planning phases of the FY2020-FY2022 CHNA process.

Methodology and Community Profile

Project Approach

The following sections detail how the CHNA process was conducted including the engagement of stakeholders and community members, methods for data collection and analyses, and the broader lens that was used to guide this process. The detailed timetable for CHNA activities is shared in **Appendix B**. The CHNA process was conducted in three phases:

- Collection of health indicator data, social determinants of health data, and community input
- Prioritization of health needs and community resource analysis
- Development of CHNA report and implementation strategies

Data Sources and Methodologies

Many sources and data collection methodologies were used to obtain a comprehensive view of the health and health care needs of the region and the people served by CCH and FH. Input on the design of data collection instruments was solicited from public health experts, health care consumers, and persons representing vulnerable and medically underserved populations and minorities. Conscientious efforts were made to reach a wide-ranging population of residents during data collection to ensure broad representation of community interests and perspectives. Detailed descriptions of these methodologies are provided in **Appendix C.** Briefly, the data sources and methodologies included:

- **Secondary Data**. Existing data from national, state, and local sources were reviewed. The types of data collected included demographics, vital statistics, and public health surveillance, as well as self-reported health behaviors from large, population-based surveys such as the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS).
- **Community Stakeholder Dialogues**. Two facilitated "stakeholder dialogues" were held with staff from a broad array of agencies and organizations actively working in the health and human services sectors of Barnstable County. Approximately 70 people attended these sessions.
- **Interviews.** Twenty-five telephone interviews were conducted with leaders from a variety of organizations serving Barnstable County including health centers, public safety organizations, housing organizations, and other human service groups.
- **Focus Groups.** Two focus groups, one conducted in Spanish and one in Portuguese, were held with residents to gather information about the community, health challenges and needs, and existing and needed services. These specific language groups were targeted based upon data collection gaps identified in the prior the prior CHNA process. A total of 20 residents participated in the focus groups.
- **Community Survey.** A community survey asking about community and individual health and health care needs was developed and made available on-line and on paper to residents of Barnstable County. The survey was conducted in English, Spanish, and Portuguese and was completed by 2,011 total residents. The demographic characteristics of the survey respondents are detailed in **Appendix E**.

Data Limitations and Information Gaps

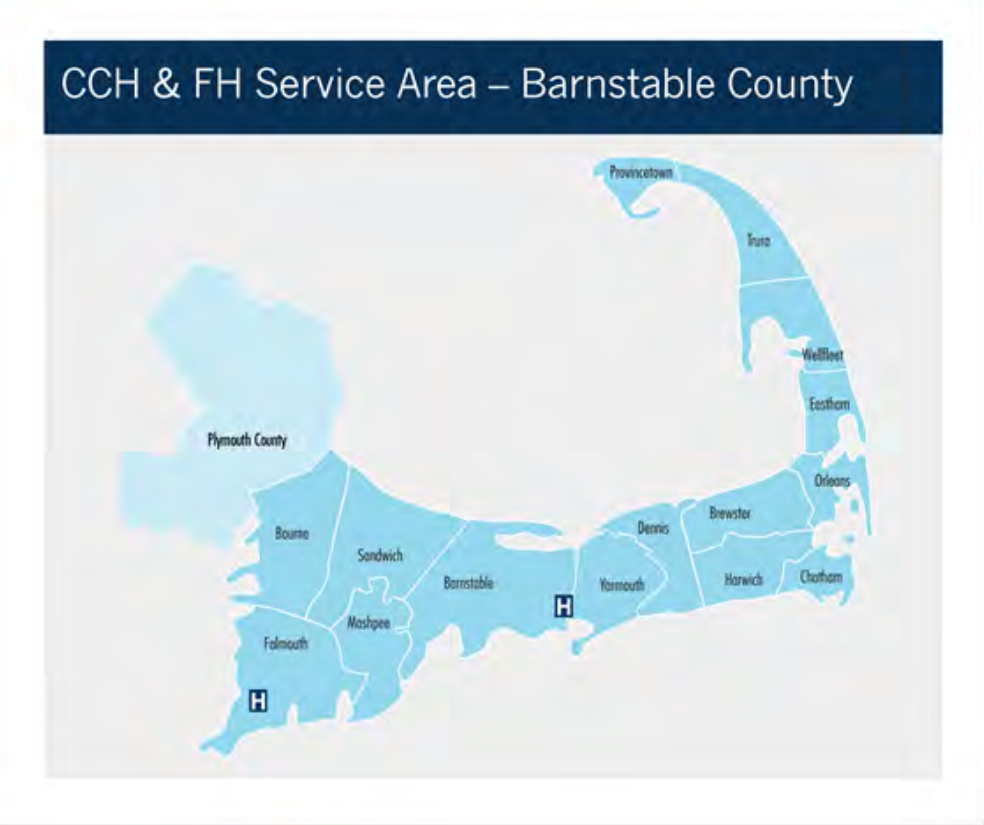
As with all data collection efforts, there are several limitations that should be acknowledged. A number of secondary data sources were drawn upon in creating this report. Although all are considered highly credible, each source may use different methods, assumptions, or time periods and may not be directly comparable to one another. For the Community Health Survey, convenience sampling was used and data were collected from those who were readily available and willing to participate. Thus, findings may not be generalizable to the larger population or to specific sub-populations of Barnstable County residents. Finally, while key informant interviews, stakeholder dialogues, and focus groups provide

valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size.

Community Profile

Definition of Community Served

CCHC's primary service area is Barnstable County. Barnstable County is a geographically isolated region located on the eastern seaboard of Massachusetts. The narrow peninsula spans over 70 miles in length and hosts a year-round population of 214,703 residents.[1] Barnstable County consists of 15 towns that vary in population size from about 45,000 residents (Barnstable) to slightly more than 1,500 residents (Truro).[2] In addition to serving year-round residents, the regional community infrastructure, including CCH and FH, must meet the demands of a significant influx of seasonal residents and visitors each year which, by one estimate, is equivalent to about seven million visitors and residents on Cape Cod in a given summer season.[3]



[1] U.S. Census Bureau. American Community Survey 5-year estimates, 2012-2016.

[2] U.S. Census Bureau. American Community Survey 5-year estimates, 2012-2016.

[3] UMASS Donahue Institute. (2015). Long-term Population Projections for Massachusetts Regions and Municipalities. Retrieved from http://pep.donahue-institute.org.

Population Demographic Trends

Nearly half of the total population of Barnstable County reside in the three largest towns (Barnstable, Falmouth, and Yarmouth) and population size becomes increasingly smaller in towns of the lower (Harwich, Brewster, Chatham, and Orleans) and outer cape (Eastham, Wellfleet, Truro, and Provincetown), many of which are considered rural.

Between 2011 and 2016, the overall population of Barnstable County remained stable with a slight decrease of -0.9%.[4] In comparison, the state population grew by 3.5% during that time period. The overall population of Barnstable County and the islands of Nantucket and Martha's Vineyard is projected to decline in coming decades (an estimated -13.0% between 2010 and 2035), attributed to out-migration of younger residents and to the fact that deaths currently outnumber births.[5]

Consistent with the previous CHNA, the population of Barnstable County is older than for the state overall. The median age in Barnstable County is 51.8 years compared to 39.4 years for the state overall (**Table 1**). Proportionally, residents age 65 years and older comprise 27.8% of the population in Barnstable County, compared to the state at 15.1%. In contrast, the proportion of residents under 18 years is lower in Barnstable County than in the state at 15.9% vs. 20.6%, respectively. Similarly, the proportion of residents between 18 and 24 years is lower in Barnstable County than in the state at 7.3% vs. 10.4%, respectively. Several towns on the lower and outer cape have a notably higher proportions of residents age 65 years and older, including Chatham (38.9%), Orleans (38.7%), and Wellfleet (38.0%), compared to the County average.

TABLE 1: AGE DISTRIBUTION OF POPULATION, 2016

	PERCENT OF TOTAL POPULATION					
	MEDIAN AGE (YEARS)	UNDER 18 YEARS	18 TO 24 YEARS	25 TO 44 YEARS	45 TO 64 YEARS	65 YEARS AND OLDER
Massachusetts	39.4	20.6%	10.4%	26.2%	27.7%	15.1%
Barnstable County	51.8	15.9%	7.3%	17.7%	31.3%	27.8%

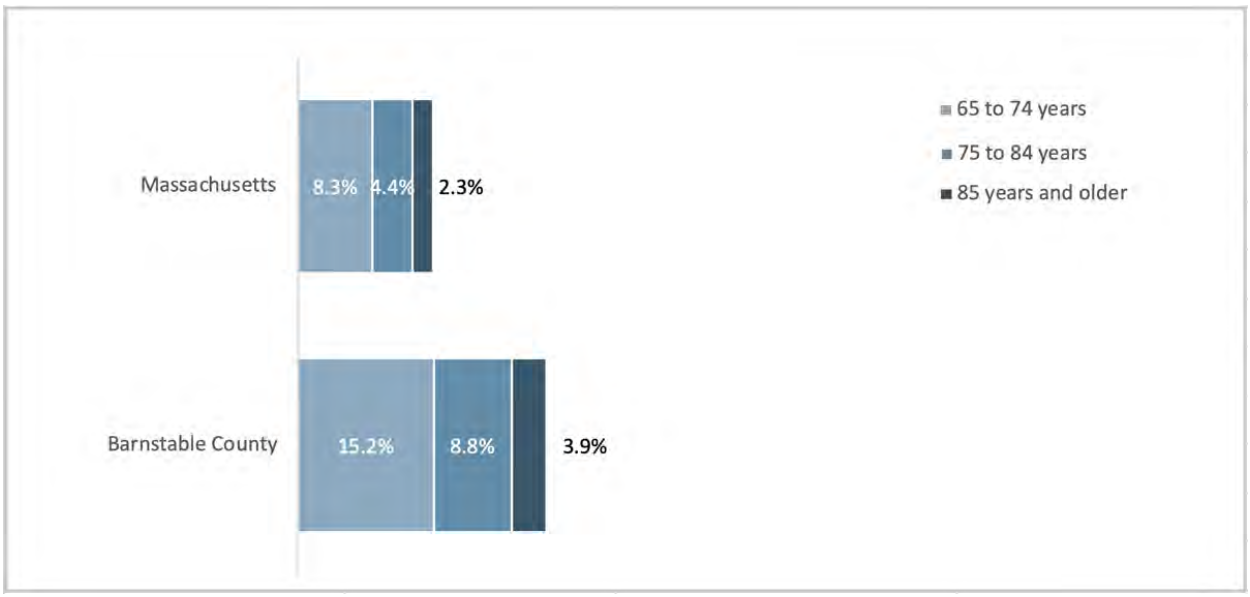
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

More detailed data on the age of residents reveal that Barnstable County also has a higher proportion of residents who are within the 'oldest' age categories compared to Massachusetts overall, including those age 75 to 84 (8.8% vs. 4.4%, respectively) and those age 85 years and older (3.9% vs. 2.3%, respectively) (**Figure 1**).

[4] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2007-2011 and 2012-2016

[5] UMASS Donohue Institute. Long-term Population Projects for Massachusetts Regions and Municipalities, 2015.

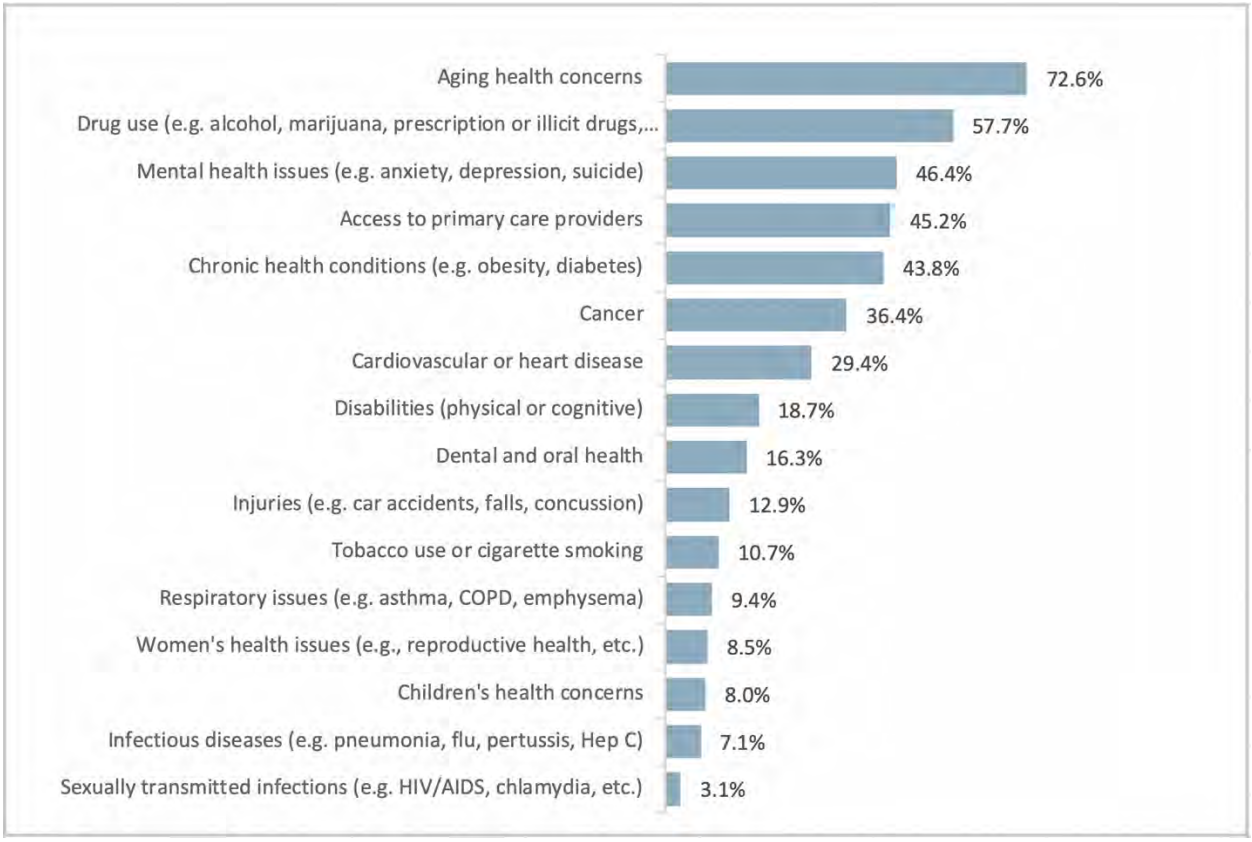
FIGURE 1: DETAILED AGE DISTRIBUTION FOR POPULATION AGE 65 YEARS AND OLDER, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

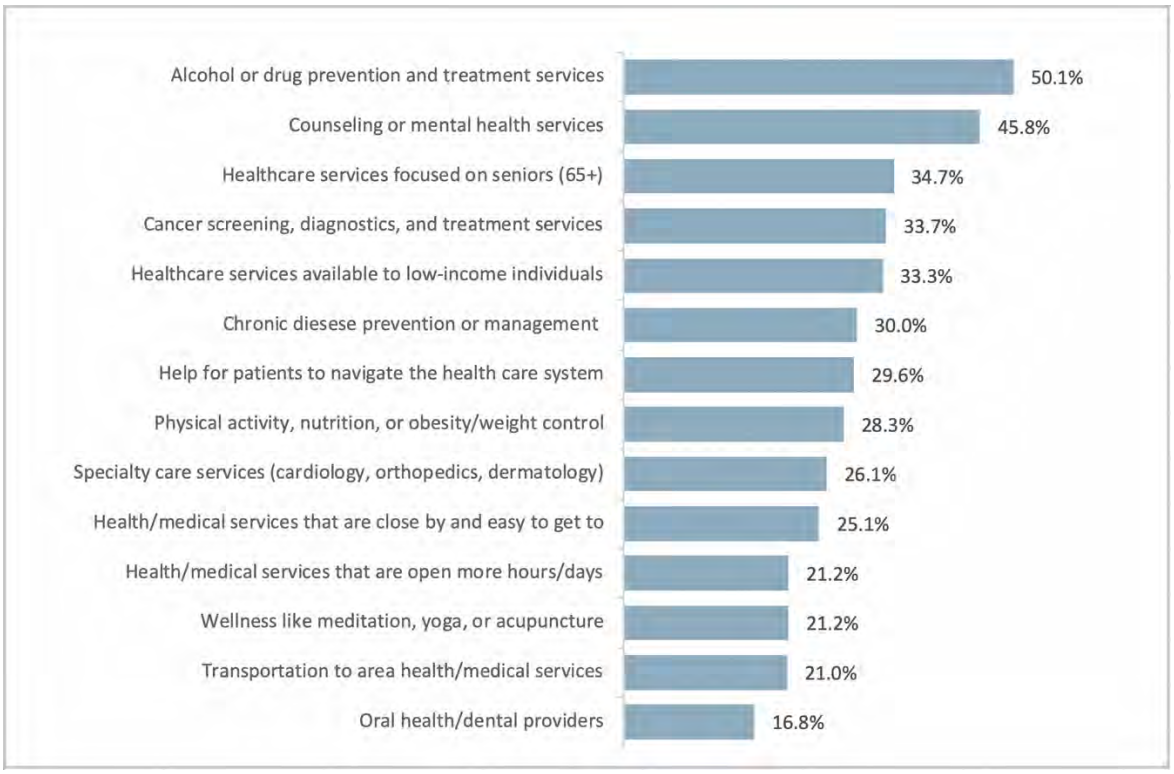
Concern about meeting the needs of an aging population was a prominent theme in key informant interviews, stakeholder dialogues, and the community survey. 'Aging health concerns' was the most frequently identified health concern for the community by survey respondents (72.6%) (**Figure 22**) with 'health care services focused on seniors' and 'support to older adults to maintain independent living' ranking among the most frequently selected health and social service priorities by survey respondents (**Figure 43** and **Figure 18**).

FIGURE 22: PERCENT OF SURVEY RESPONDENTS IDENTIFYING ISSUE AS A TOP HEALTH CONCERN FOR COMMUNITY



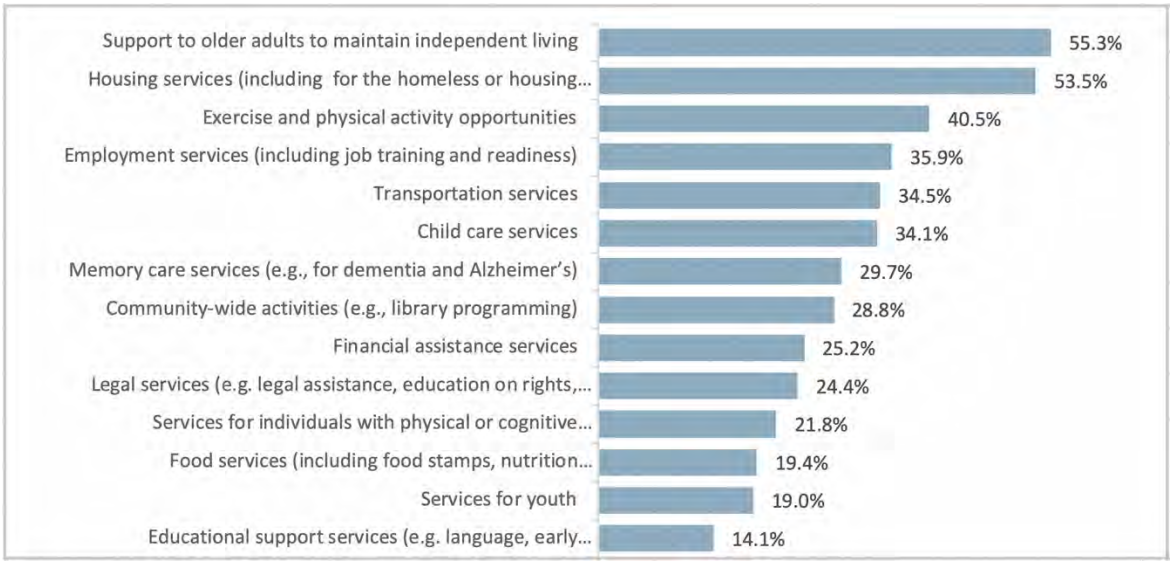
DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,727; respondents were asked to select up to five responses; percentages may not sum to 100%

FIGURE 43. PERCENT OF SURVEY RESPONDENTS IDENTIFYING HEALTH CARE SERVICE AS A TOP PRIORITY



DATA SOURCE: CCHC Community Health Survey, 2018
NOTE: Respondents were asked to select up to five responses; percentages may not sum to 100%; percentages are based upon sample size of n=1,503

FIGURE 18. PERCENT OF SURVEY RESPONDENTS IDENTIFYING SOCIAL SERVICE AS A TOP PRIORITY

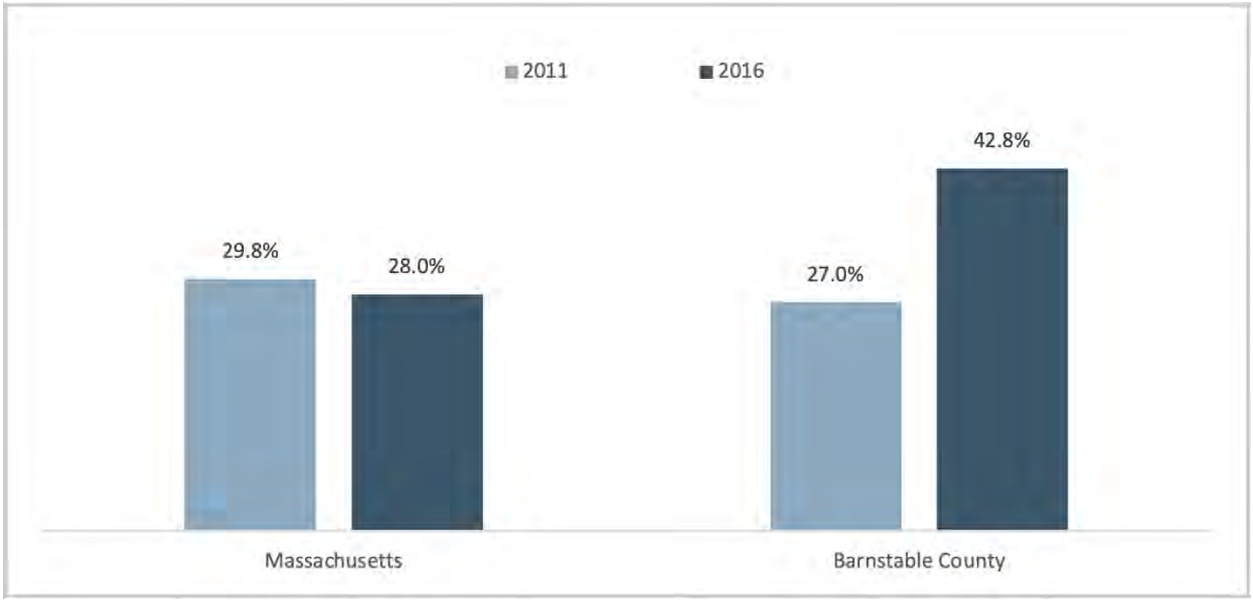


DATA SOURCE: CCHC Community Health Survey, 2018
NOTE: Respondents were asked to select up to five responses; percentages may not sum to 100%; percentages are based upon sample size of n=1,466

Key informant interviewees also noted that the population in the region is older and aging, which affects and will continue to affect the health and social service infrastructure.

One phenomenon discussed by key informant interviewees and substantiated by existing data is the large and growing number of seniors who are caring for grandchildren. Between 2011 and 2016, the proportion of grandchildren residing with their grandparents, who are responsible for them, declined in Massachusetts from 29.8% to 28.0%, while it increased substantially in Barnstable County from 27.0% to 42.8% (**Figure 2**). This increase occurred in parallel timing with the inception of the opioid epidemic in 2012, which has disproportionally impacted Barnstable County. While grandparents' homes can provide stability and support when parents are unable to care for their children, caring for grandchildren can be physically and emotionally demanding for seniors, create financial challenges, and strain social and family relationships. These all contribute to poorer mental and physical health among grandparents.[6]

FIGURE 2: PERCENT OF GRANDCHILDREN RESIDING WITH THEIR GRANDPARENTS WHO ARE RESPONSIBLE FOR THEM, 2011 VS. 2016



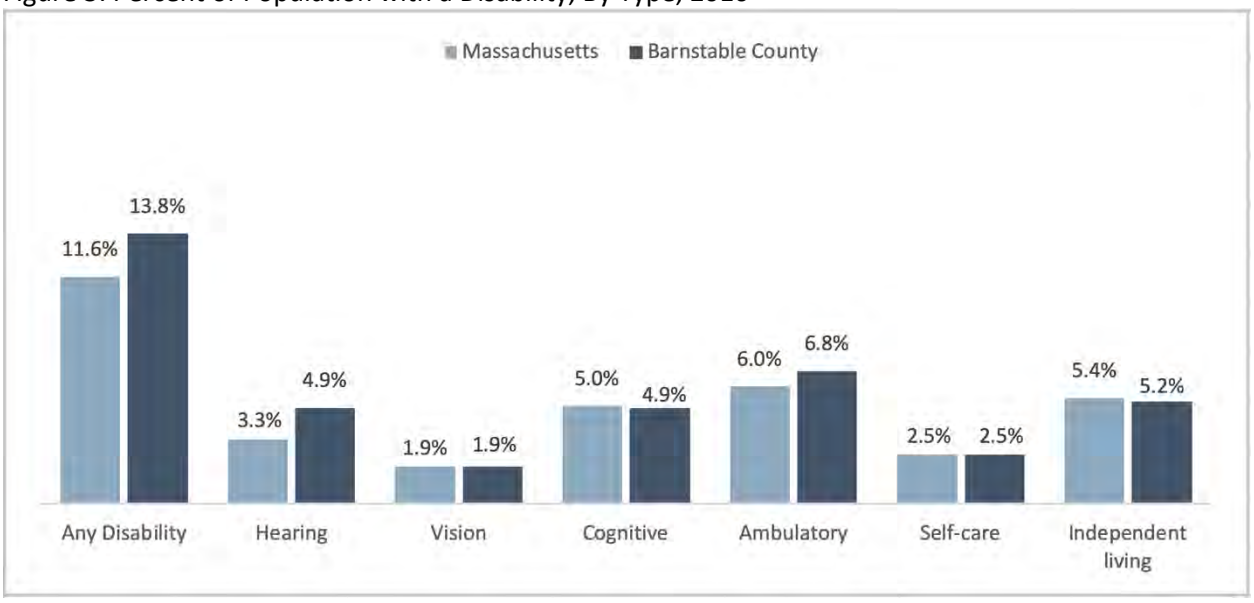
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2007-2011 & 2012-2016

Related in part to the older age of the population, Barnstable County has a larger proportion of veterans and residents with disabilities than the state overall. Eleven percent (11.0%) of county residents identified as veterans compared to 6.4% for the state overall.[7] The largest proportion of veterans residing in Barnstable County is of the Vietnam era (36.2%). Approximately 14% of residents in Barnstable have a disability, compared to 11.6% for the state.

Between about 5% to 7% of Barnstable County residents have a hearing, cognitive, ambulatory, or independent living disability (**Figure 3**).

[6]https://www.asaging.org/blog/grandparents-grandchildren-and-caregiving-impacts-americas-substance-use-crisi
[6]https://www.asaging.org/blog/grandparents-grandchildren-and-caregiving-impacts-americas-substance-use-crisi
[7] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016; NOTE: Rates are based upon the civilian population aged 18 years or older.

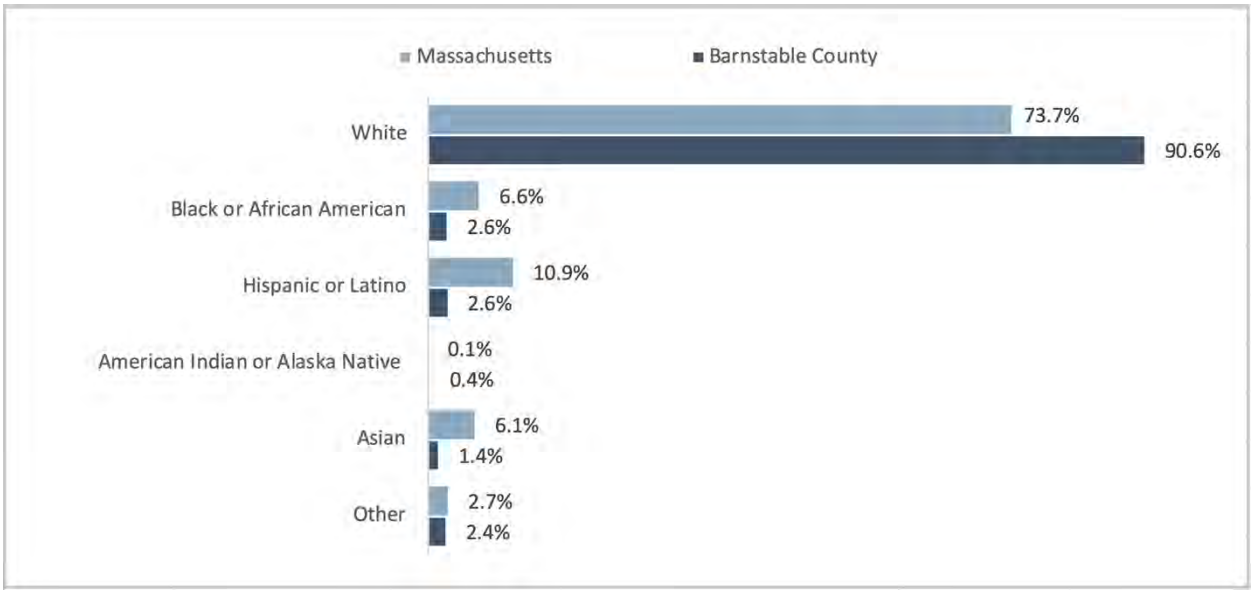
Figure 3: Percent of Population with a Disability, By Type, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

In terms of race and ethnicity, the population of Barnstable County is less diverse than the state overall. Ninety percent (90.6%) of Barnstable County residents identify as White, non-Hispanic compared to 73.7% in the state overall (**Figure 4**). Though comprising a small proportion of the overall population, approximately 20,000 Barnstable County residents identify as a racial or ethnic minority.

FIGURE 4. RACIAL/ETHNIC DISTRIBUTION OF POPULATION, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

Similarly, smaller proportions (7.8%) of Barnstable County residents speak a language other than English compared to the state overall (22.7%).[8] While language minorities comprise a small portion of the county's population, Spanish and Portuguese-speaking focus group participants shared those language barriers are a substantial barrier to economic advancement and the ability to access some health and social services. Focus group participants further reported that limited spaces in English as a Second Language (ESL) classes make it difficult for immigrants to learn English.

Social Determinants of Health and Health Findings

Social Determinants of Health Framework

The review of secondary data was undertaken with a broad definition of health that recognized numerous factors, beyond individual behaviors, that impact individual, community, and regional health. It is important to recognize that these multiple factors have an impact on health and that there is a dynamic relationship between real people and their lived environments. **Figure 5** provides a visual representation of this relationship.

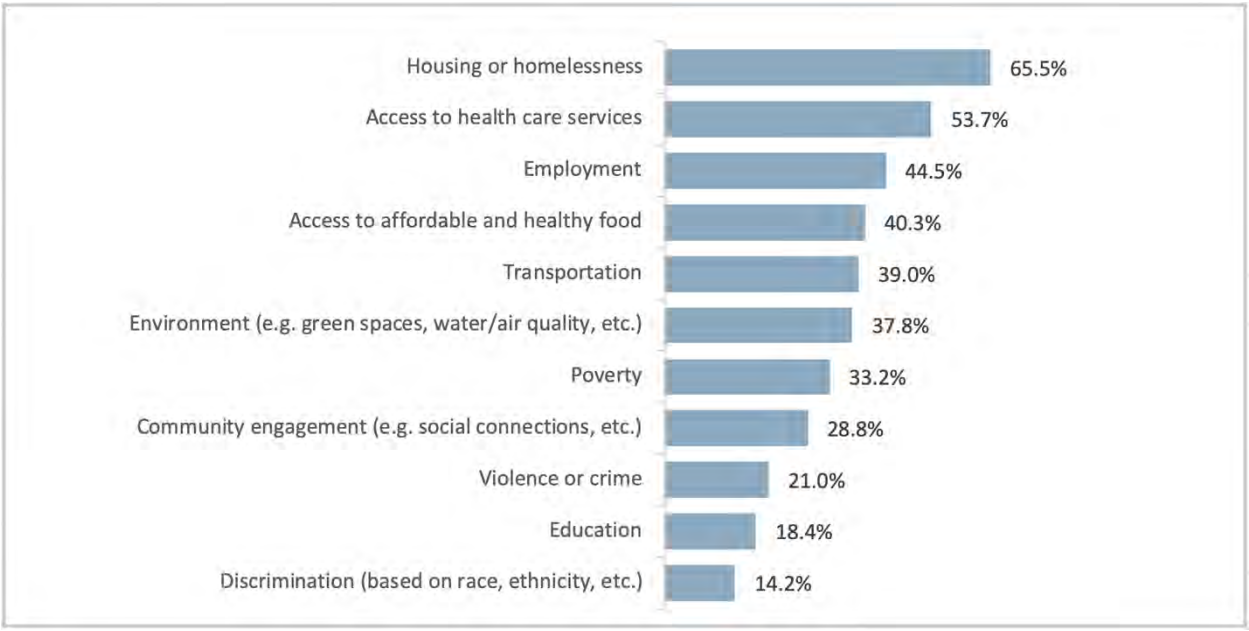
FIGURE 5: SOCIAL DETERMINANTS OF HEALTH FRAMEWORK

DATA SOURCE: Health Resources in Action, 2018

[8] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016; NOTE: Rates are based upon the population aged 5 years or older.

Given the impact that social factors have on health, community survey respondents were asked to identify the social issues most affecting the community. Housing or homelessness was identified as the top concern affecting the community by 65.5% of respondents, followed by access to health care services, identified by 53.7% of respondents (**Figure 6**). Other pressing issues identified by respondents included employment (44.5%), access to affordable and healthy food (40.3%), and transportation (39.0%).

FIGURE 6: PERCENT OF SURVEY RESPONDENTS IDENTIFYING ISSUE AS A TOP SOCIAL CONCERN FOR THE COMMUNITY



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,469; respondents were asked to select up to five responses; percentages may not sum to 100%

Poverty as a social concern ranked more highly among survey respondents with household incomes less than $35,000 (42.6%) while the environment ranked more highly among survey respondents age 65 years or older (42.3%). The leading social concerns identified in the survey were echoed by key informant interviewees, focus group participants, and those participating in stakeholder dialogues and are discussed in subsequent sections by topic area.

Housing and Homelessness

> *"[Residents'] ability to earn wages doesn't match the cost of housing."* (Key Informant Interviewee)
>
> *"Every day we hear about somebody who has to leave the Cape because the prices of housing are going up more and more."* (Key Informant Interviewee)

Quantitative data consistently show that the housing stock located in Barnstable County is unique within the state. Based on a 2017 real estate and housing report, 49% of all the seasonal units that exist in

Massachusetts are located in Barnstable County.[9] Furthermore, the number of seasonal units is growing twice as fast as year-round units with implications for the availability of housing to year-round residents.

The cost and availability of housing in Barnstable County was mentioned as an area of concern in almost every focus group and interview, as well as in stakeholder dialogues, and was seen as a fundamental challenge affecting overall well-being and health. Housing—both ownership and renting—was described by participants as very expensive and increasing in cost as demand for seasonal housing increases. The high cost of housing contributes to an overall high cost of living in the community, which creates substantial pressure for year-round families, especially those who are low-income. Demand for vacation rental properties likewise means that less housing is available for those who need it all year long with implications for employment and the workforce.

The cost of housing also affects the ability to retain healthcare professionals with year-round employment, including nurses, medical assistants, physician assistants, and nurse practitioners, which interviewees described as potentially having a long-term impact on the availability of health care. Regarding the housing that is available, some focus group participants further expressed dismay with the quality of the housing (e.g., mold).

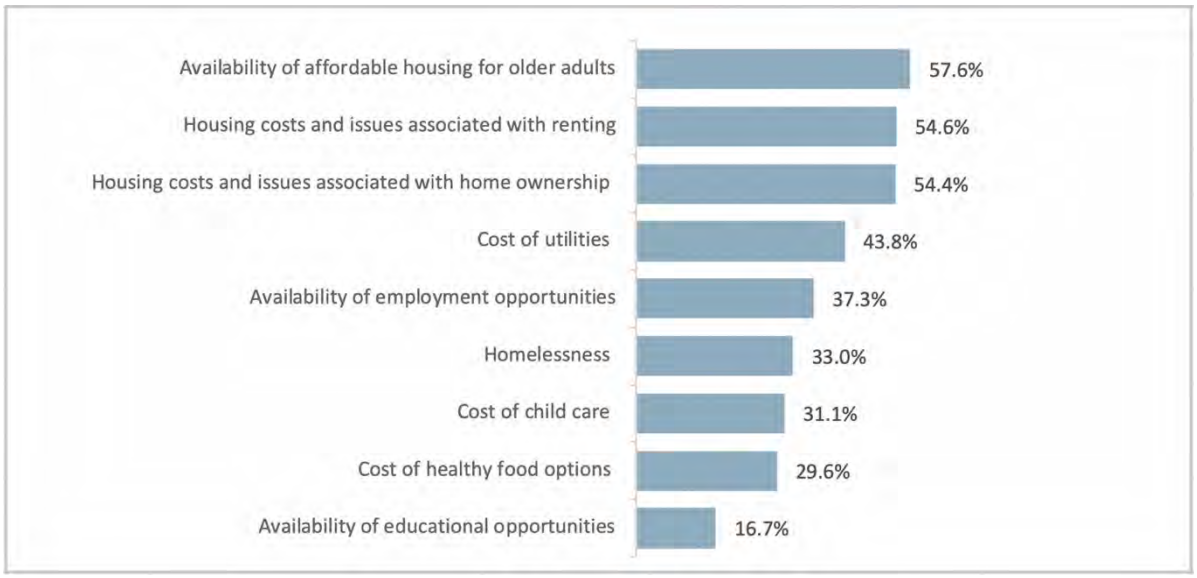
As of 2018, an estimated 358 homeless individuals reside in the Cape Cod region, including 102 dependent children.[10] The annual count has remained consistent over the past 3 years.

As noted above, 65.5% of community survey respondents identified housing and homelessness as the top social concern in the community (**Figure 6**). When asked to rate their level of concern for specific housing and economic issues impacting their community, the issues of 'affordable housing for older adults', 'housing costs and issues associated with renting', and 'housing costs and issues associated with home ownership' were rated as a 'high concern' by the largest proportions of survey respondents (57.6%, 54.6%, and 54.4%, respectively) **(Figure 7**). Among survey respondents living on the lower or outer cape, each of these issues was rated as a 'high concern' by an even larger proportion of respondents (69.0%, 66.6%, and 65.6%, respectively).

[9] Cape Cod Commission, Cape Cod Regional Housing Market Analysis Report, 2017.

[10] Cape and Islands Regional Network on Homelessness, Annual Point in Time Count for Barnstable, Dukes, and Nantucket Counties, 2016, 2017, 2018.

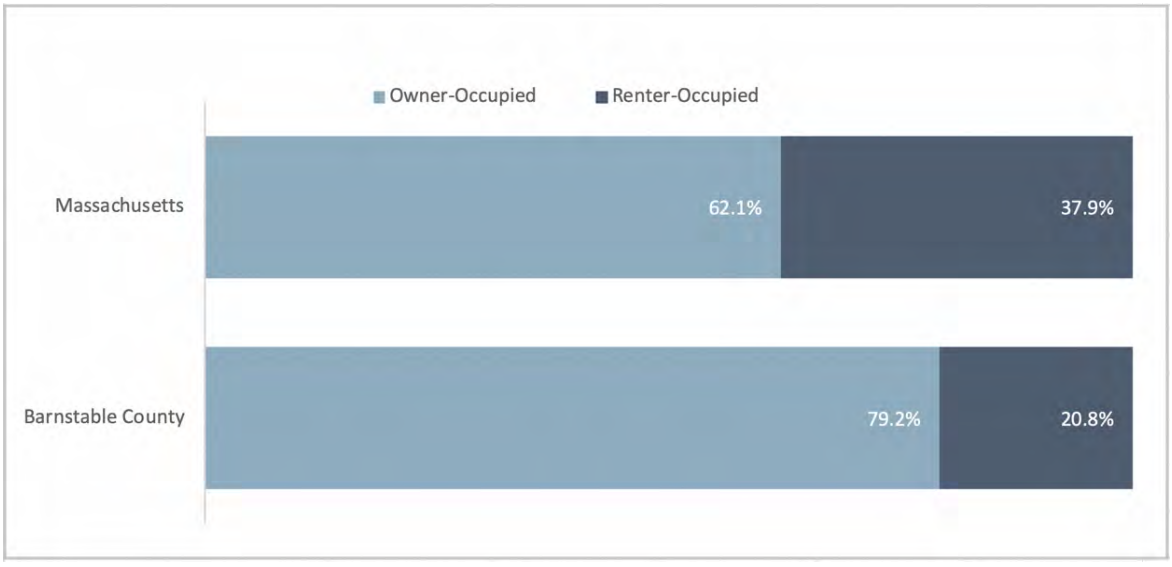
FIGURE 7: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN", BY HOUSING/ECONOMIC ISSUE



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,648

Households in Barnstable County are predominately owner-occupied with less than one quarter (20.8%) being renter-occupied (**Figure 8**). However, some towns have larger proportions of renter-occupied households than the county, specifically Provincetown (33.2%), Barnstable (25.4%), and Bourne (24.6%).

FIGURE 8: PERCENT OF HOUSEHOLDS THAT ARE RENTER VS. OWNER OCCUPIED, 2016

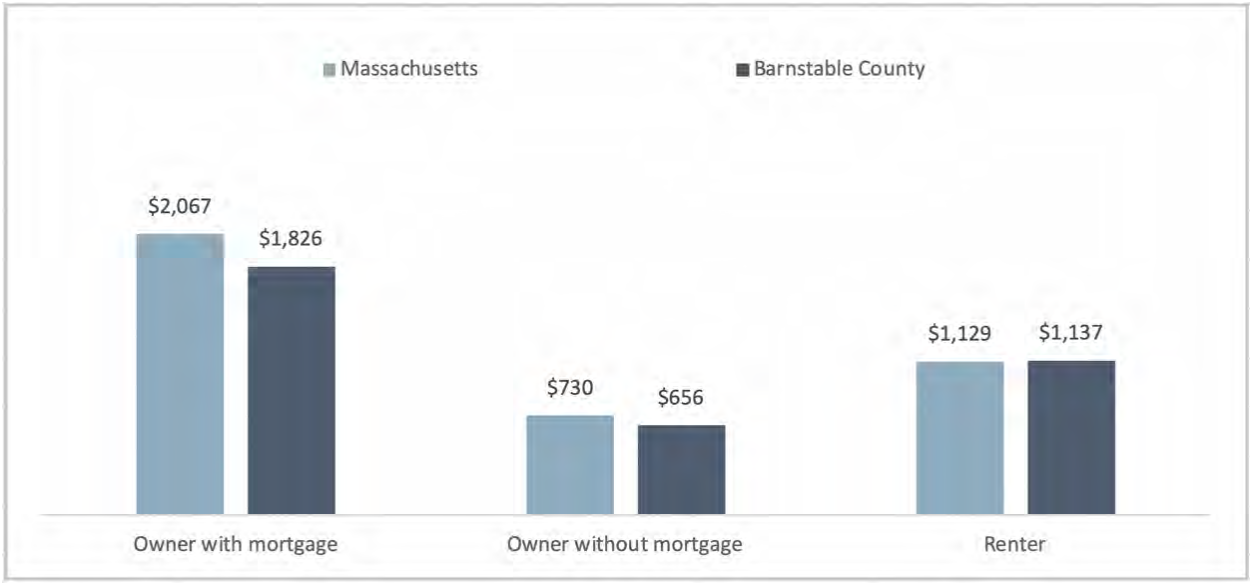


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

Median monthly housing costs for residents of Barnstable County are similar to the state regardless of housing type (owners with a mortgage: $2,067 in MA vs. $1,826 in Barnstable County; owners without a mortgage: $730 in MA vs. $656 in Barnstable County; renters: $1,129 in MA vs. $1,137 in Barnstable County) (**Figure 9**). However, these estimates may not reflect shorter-term seasonal pressure on housing

costs as the U.S. Census American Community Survey captures data using a 2-month residency rule (i.e., those residing in a place for less than 2 months are not included in the survey).

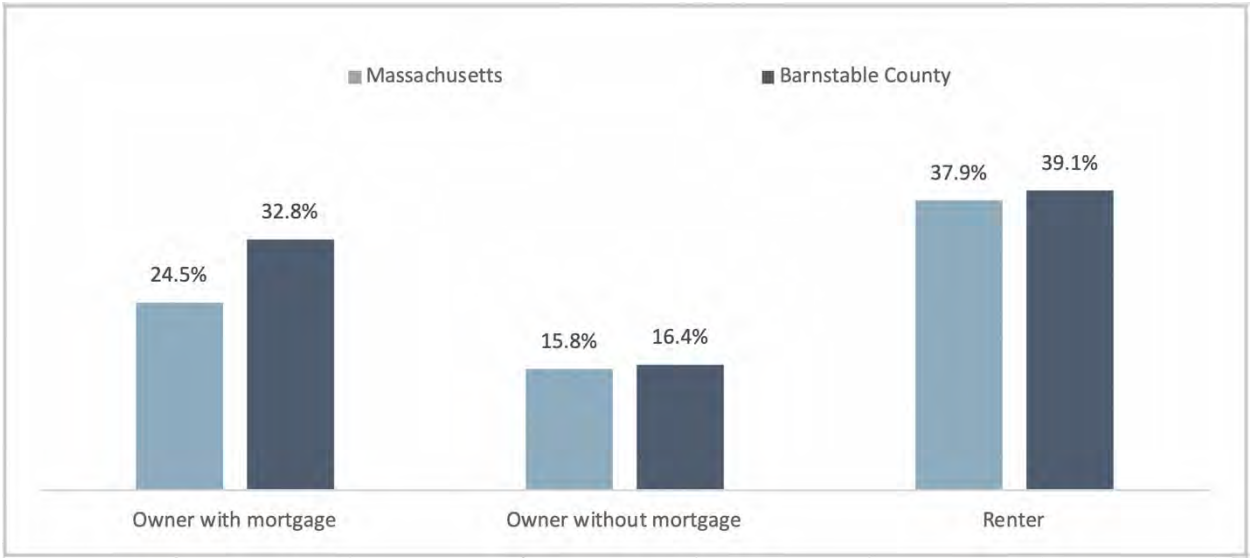
FIGURE 9: MEDIAN MONTHLY HOUSING COSTS BY OWNERSHIP STATUS, BY STATE AND COUNTY, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

In Barnstable County, over one third (39.1%) of renters and nearly one third (32.8%) of owners with a mortgage are identified as 'housing cost burdened' (i.e., the household devotes 35% or more of household income to housing costs) (**Figure 10**). These rates exceed those for the state overall, at 37.9% and 24.5% for renters and owners with a mortgage, respectively.

FIGURE 10: PERCENT OF HOUSING UNITS THAT ARE COST BURDENED, BY OWNERSHIP STATUS, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016
NOTE: Cost burdened is defined as housing costs that equal 35% or more of household income

In thinking about the future, focus group and stakeholder dialogue participants as well as interviewees stressed the importance of improving housing quality, availability, and affordability for year-round residents and seasonal workers. *The market rate cost of renting, for example, is tremendous – it's more than Boston."* Implications for the aging population looking to downsize were also brought up by key informant interviewees. Participants identified improvements to the wastewater system and updated zoning regulations for spaces that can support housing as possible solutions to improving housing. Participants stressed that updates to city/town zoning regulations could also be a feasible way to meet the increasing needs regarding affordable housing availability and the growing aging population.

Overall, participants emphasized the importance of improving housing with a thoughtful approach and smart design of neighborhoods. Along those same lines, participants supported a comprehensive community approach to homelessness, as many homeless individuals must also manage physical and/or mental health concerns. Participants also identified access to residential and public spaces as a community need. Some participants highlighted the fact that many elderly residents and individuals with disabilities find buildings to be inaccessible due to a lack of accommodations. These challenges can increase the risk for social isolation for some residents.

Income and Poverty

> *"Most people here have to have two jobs because the salaries are low, the income is low. There is no social life because when people leave work, they have to go to their second job."* (Focus Group Participant)
>
> *"I think that there is a perception that everyone that lives on the Cape is wealthy, which of course is not true. The people that live here year-round that are in the service industry, it's common practice for so many folks to move out of their homes in the summer…to rent their homes because they can get so much money through the summer to take them through the winter."* (Key Informant Interviewee)

Although the prevailing view is that residents of Barnstable are primarily wealthy, key informant interviewees shared that this is a misperception as there are many residents in the county who are low-income and face financial instability. One third (33.2%) of community survey respondents identified poverty as one of their top social concerns (**Figure 6**).

The overall median household income for Barnstable County is slightly below the state ($65,382 vs. $70,954), and generally much lower in non-family and renter-occupied households than in owner-occupied and family households ($37,140, $36,077, $73,364, and $82,945, respectively, in Barnstable County) (**Table 2**). Median household incomes were noted as particularly low for non-family households in Wellfleet ($25,667), Orleans ($29,881), and Provincetown ($31,958) and for renter-occupied households in Orleans ($15,662), Wellfleet ($21,458), and Dennis ($23,425).[11]

[11] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016.

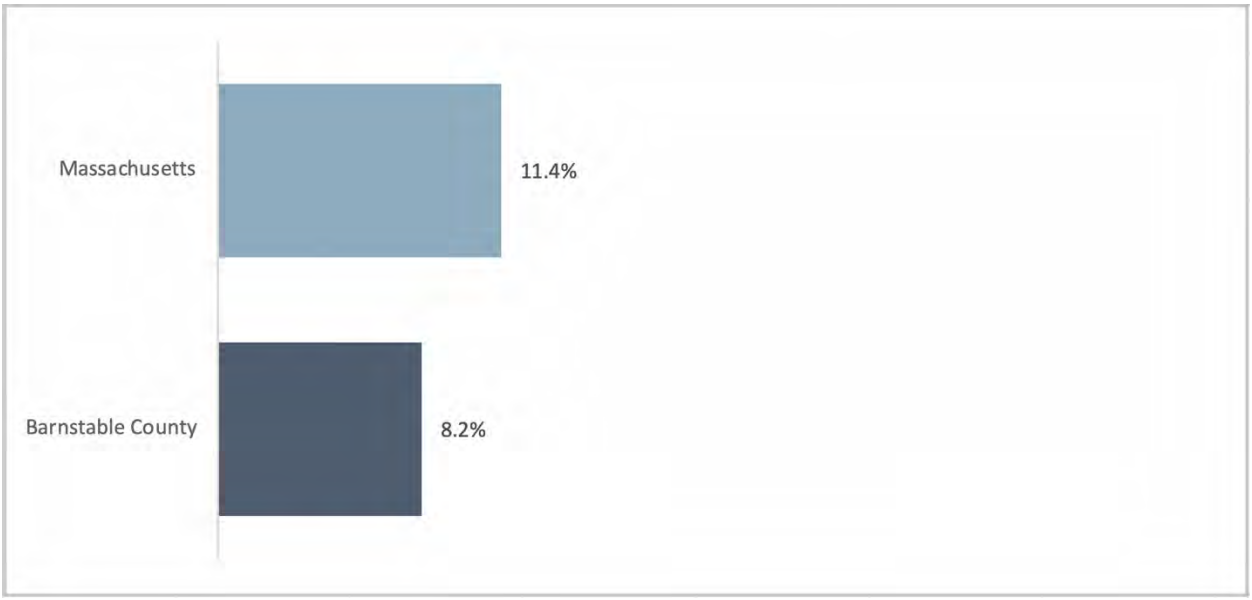
TABLE 2: MEDIAN HOUSEHOLD INCOMES BY HOUSEHOLD TYPE, 2016

	ALL	FAMILY HOUSEHOLDS	NON-FAMILY HOUSEHOLDS	OWNER-OCCUPIED HOUSEHOLDS	RENT-ER-OCCUPIED HOUSEHOLDS
Massachusetts	$70,954	$90,180	$40,726	$95,052	$39,116
Barnstable County	$65,382	$82,945	$37,140	$73,364	$36,077

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

The individual poverty rate for Barnstable County is lower than for the state, at 8.2% vs. 11.4%, respectively (**Figure 11**). However, there is variability between towns, with Provincetown (13.2%) and Chatham (12.7%) having higher rates of poverty than the state.[12] Similarly, the poverty rate for individuals age 65 and older is lower for Barnstable County than for the state (5.4% vs. 9.0%, respectively), whereas Provincetown has a higher rate of poverty for individuals age 65 and older than the state (15.0%).[13]

FIGURE 11: PERCENT OF INDIVIDUALS WITH INCOME BELOW 100% OF FEDERAL POVERTY LINE, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

Employment

> *"We're primarily a service industry, meaning the hospitality, restaurants – things that support the tourism business, which is our prime economic driver. So, we have plenty of service-related jobs, but they're not jobs that can support a family and can support the higher cost of housing here."* (Key Informant Interviewee)

[12] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016.

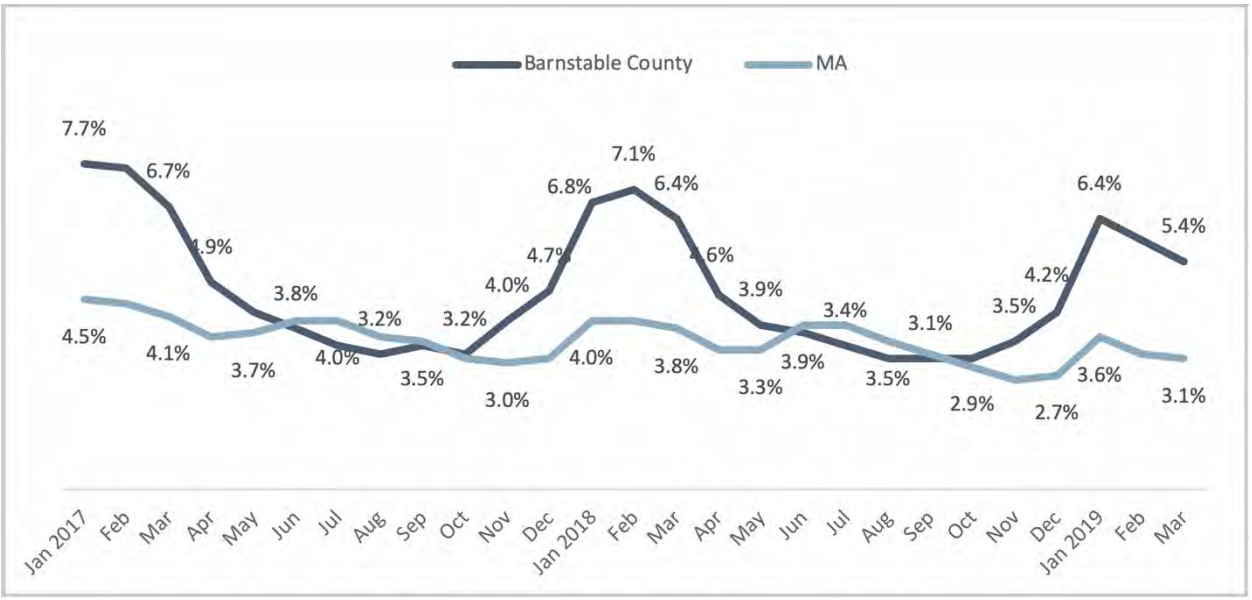
[13] U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016.

"It is a problem, not just for the lower income people, but the children of the middle-income people, the upper middle class even. If they go away to college, they often don't come back because the good, entry-level professional jobs are not here." (Key Informant Interviewee)

Community participants expressed substantial concern about the seasonal job cycle (i.e., high employment in the summer and low employment in the winter) and the impact it has on the overall economy and poverty. The prevalence of seasonal service-based jobs and the lack of year-round professional jobs leads to reduced opportunities for upward job mobility, which – in addition the high cost of housing – deters young professionals from living and working in Barnstable County.

Quantitative data confirm that unemployment rates in Barnstable County are highly variable, swinging from highs of 6% to 7% in the winter months to lows of 3% to 4% in the summer months (**Figure 12**). In 2018, the seasonal swing in unemployment rates was particularly pronounced for towns of the Outer Cape. Between January and August 2018, Provincetown swung from a low of 2.5% to a high of 22.1%, Truro swung from a low of 1.8% to a high of 14.4%, and Wellfleet swung from a low of 2.5% to a high of 12.4%.[14]

FIGURE 12: TREND IN UNEMPLOYMENT RATE, JANUARY 2017 THROUGH MARCH 2019



DATA SOURCE: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2017, 2018, 2019
NOTE: Rates shown are not seasonally adjusted; represents the number unemployed as a percent of the labor force; unemployed is defined as persons aged 16 years and older who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the 4-week period ending with the reference week

A seasonal economy forces many residents to earn much of their income for an entire year over the course of five months. This leads to many residents experiencing financial insecurity during the

[14] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2018.

remainder of the year. Concerns were expressed that there is a lack of support for the working poor (individuals working more than one job, but still falling under the federal poverty line).

There was also a primary concern for young adults (persons aged approximately 18 to 26 years old). This cohort was described as being vulnerable to the effects of the seasonal economy and the overall lack of professional jobs in Barnstable County. Immigrants, who tend to be lower skilled, likewise face challenges in the economy. Focus group participants reported that the experience of economic instability during winter time brings with it stress, anxiety, and depression.

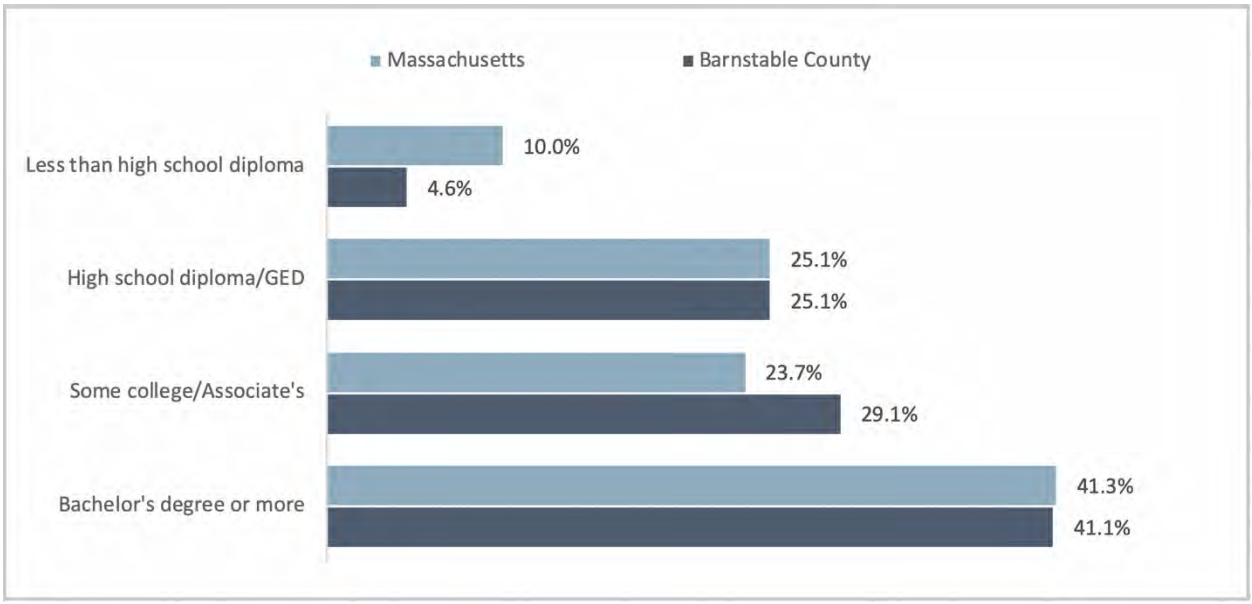
Generally, participants expressed desire for more overall funding and investments in economic development in the county. Additionally, participants would like to see improvements in the creation of incentives to hire older adults. Many of these residents want to continue working, but preferred part-time work, making them less competitive applicants.

Education

Barnstable County residents are well educated. Focus group participants and key informant interviewees reported that schools in the community are strong.

In Barnstable County, 4.6% of residents have less than a high school diploma, compared to 10% at the state level. However, 70.2% or residents have completed at least some amount of college or obtained a college degree, compared to 65.0% at the state level (**Figure 13**). The four-year high school graduation rate for Barnstable County is slightly lower than the rate for Massachusetts in 2017 (86.0% vs. 88.3%, respectively)[15] , which reflects the current population of youth residing year-round in the County.

FIGURE 13: EDUCATIONAL ATTAINMENT FOR POPULATION AGE 25 YEARS AND OVER, 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016
NOTE: Rates shown are based upon the population aged 25 years or older

[15] Massachusetts Department of Elementary and Secondary Education, School/District Profiles, 2017.

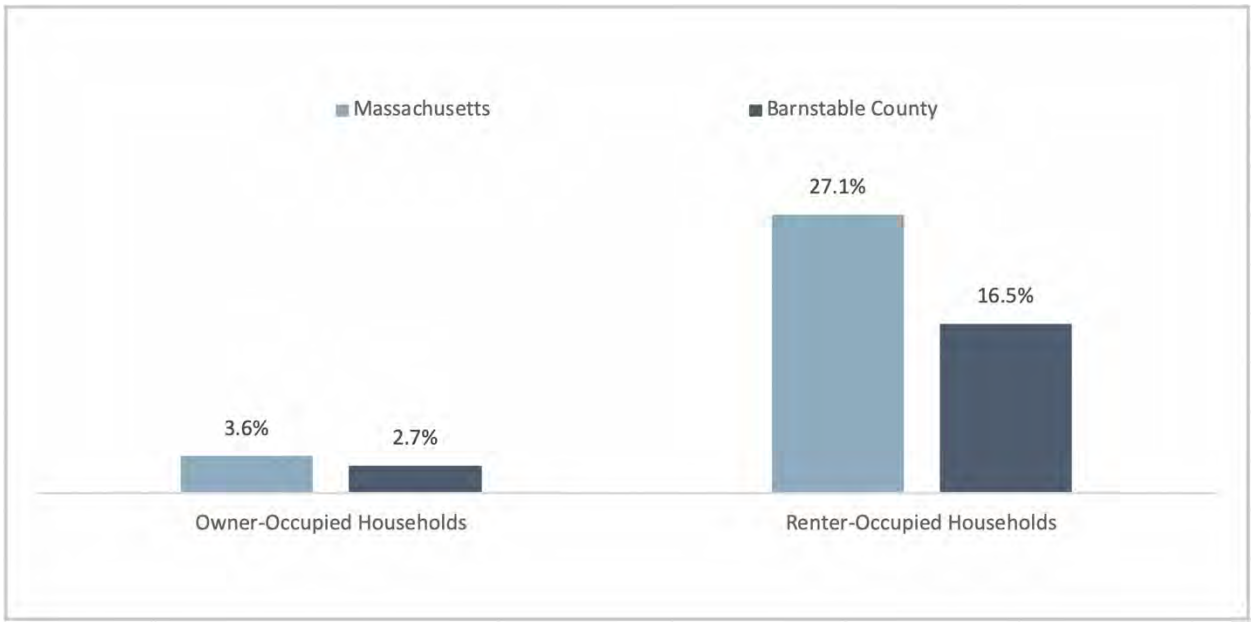
Transportation

> *"If you have a car, you're fine. But if you do not and you live in Provincetown and you need get over to the next town or two towns over, you might as well be going to Boston because it's that difficult to navigate around the Cape without a car."* (Key Informant Interviewee)

Both public and private transportation access and availability were a top concern in the community. Interviewees acknowledged that the Regional Transit Authority (RTA) makes a significant effort to meet the needs of residents who require public transportation, but rural geography and insufficient infrastructure creates challenges. As one key informant interviewee said, *"If you don't own car it's nearly impossible to live on Cape Cod."*

Existing data suggest that access to a vehicle is not universal in Barnstable County. A fairly small proportion of owner-occupied households (2.7%) do not have access to a vehicle. However, the rate is over five times higher (16.5%) among renter-occupied households (**Figure 14**).

FIGURE 14: PERCENT OF HOUSEHOLDS WITH NO VEHICLE AVAILABLE, 2016



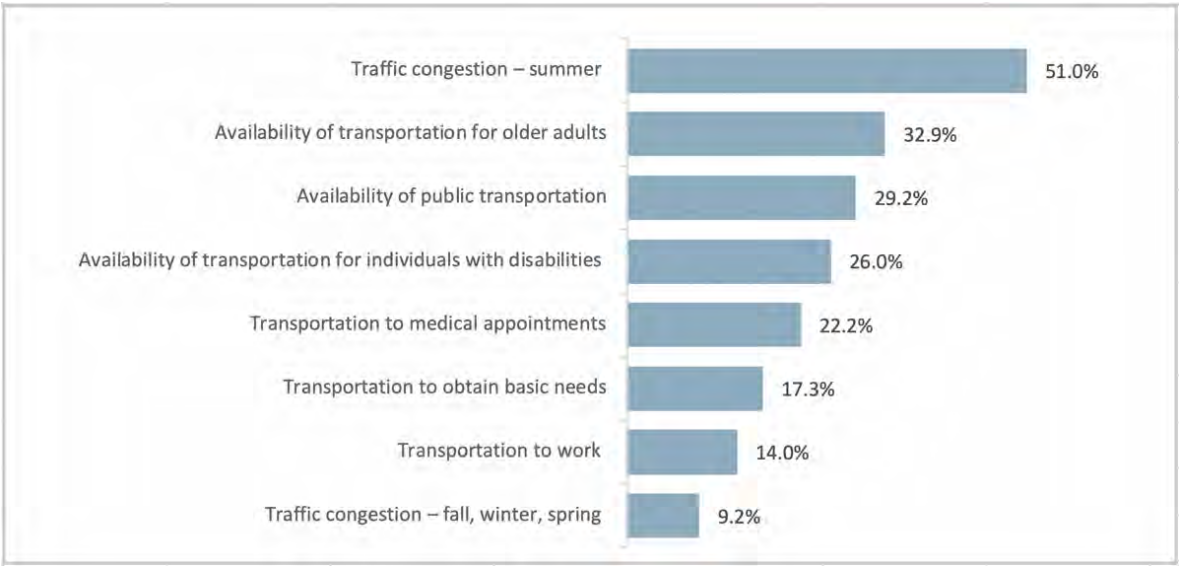
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

Reduced public transit service in the winter months was noted as particularly difficult for year-round residents. While Cape Cod Healthcare has endeavored to reduce the number of residents who need to travel to Boston for health care, there are still transportation challenges for residents who do not have a vehicle. Some participants mentioned that existing transportation services are not well marketed to those who need them.

Thirty-nine percent (39.0%) of community survey respondents identified transportation as a top social concern in the community (**Figure 6**). When asked to rate their level of concern for specific transportation issues impacting their community, the issues of 'summer traffic congestion' and 'availability of transportation for older adults' were rated as 'high concern' by the largest proportion of

survey respondents at 51.0% and 32.9%, respectively; 29.2% identified 'availability of public transportation' as an issue (**Figure 15**).

FIGURE 15: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN", BY TRANSPORTATION ISSUE



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,648

When asked about what needs to change, participants envisioned improvements to the both the roadways and the public transportation system, so that the community can better handle the population influx during warmer months and residents without personal vehicles can better travel throughout the county.

Food Access

Geographic access to food is more limited in Barnstable County where 9.7% of low-income households are estimated to have limited access to healthy food compared to 4.1% low-income households in the state overall.[16]

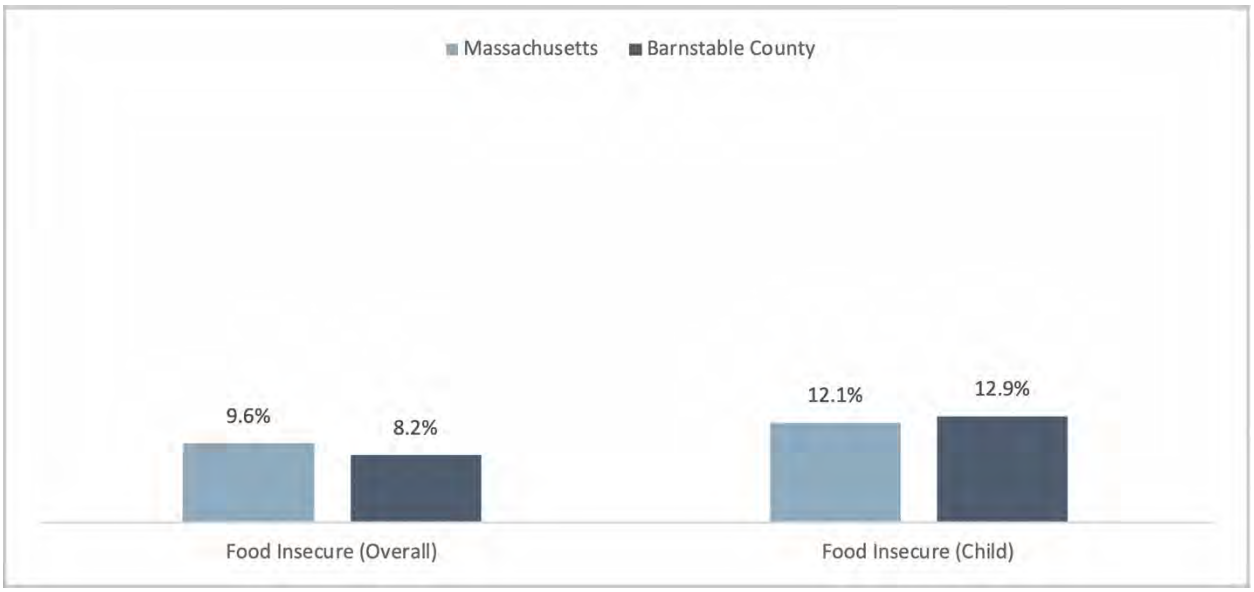
Forty percent (40.3%) of community survey respondents identified 'access to affordable and healthy food' as a top social concern in the community (**Figure 6**) and 29.6% of survey respondent rated the 'cost of healthy food options' as a 'high concern' for the community (**Figure 7**).

Overall, the proportion of the population estimated to be food insecure is slightly lower in Barnstable County than the state overall (8.2% vs. 9.6%, respectively). However, the proportion of children estimated to be food insecure is slightly higher in Barnstable County than the state overall (12.9% vs. 12.1%, respectively) (**Figure 16**). Furthermore, among the 8.2% who are food insecure in Barnstable County, an estimated 36% of these individuals have incomes above the income threshold of less than

[16] U.S. Department of Agriculture Food Environment Atlas, 2015.

200% of the federal poverty line and are therefore not eligible for Supplemental Nutrition Assistance Program (SNAP) benefits.[17]

FIGURE 16: PERCENT OF POPULATION THAT IS FOOD INSECURE, 2016



DATA SOURCE: Feeding America, Map the Meal Gap, Food Insecurity Estimates at the County Level, 2016

The percent of households that received SNAP benefits in the prior year is lower in Barnstable County than the state (7.8% vs. 12.5%, respectively).

Social Environments

> *"I think the community has a wonderful ability to come together and solve problems."* (Key Informant Interviewee)
>
> *"Because we're an older community and there is wealth on the Cape, it's a very generous community. There are a lot of public and charitable resources on the Cape for folks who are struggling. A lot of partnerships exist, both private and public."* (Key Informant Interviewee)

Barnstable County was described by key informant interviewees as a *"very collaborative region"* and a caring, cooperative community with the ability to respond to issues with strong connectivity. Awareness and collaboration were considered major factors in addressing community issues. Some noted that the collaboration is unavoidable due to the location of Barnstable County relative to the rest of the state. Regarding community cohesion, one key informant? Interviewee explained, *"There's a resiliency here that you don't necessarily see in other areas."* Focus group participants likewise praised their communities and reported that they enjoyed living on Cape Cod. As one focus group participant stated, *"People are kind and polite."*

[17] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2018.
[18] Federal Bureau of Investigation, Criminal Justice Information Services (CJIS), Uniform Crime Reporting (UCR), Offenses Known to Law Enforcement, by State and by City, 2017; NOTE: Data not available for county; property crime includes burglary, larceny-theft, and arson.

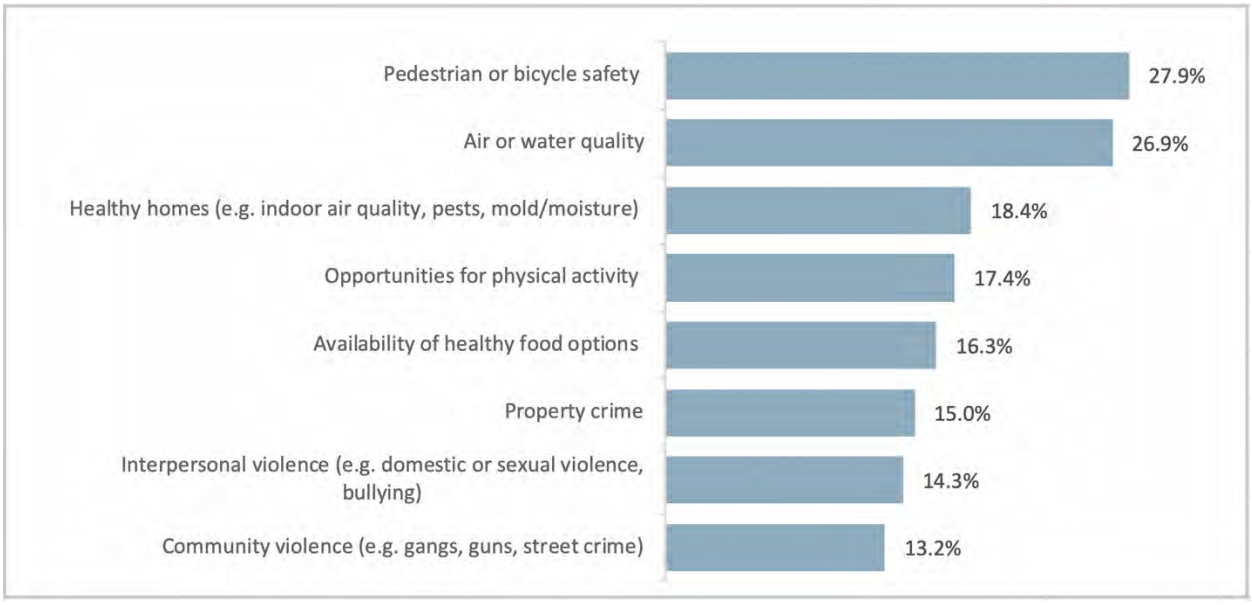
Despite these perceptions, 28.8% of community survey respondents identified 'community engagement/social connections' as a top social concern for the community **(Figure 6)** and 37.1% identified this as a concern for themselves individually and/or their families. Additionally, 'social isolation or loneliness' was rated as a 'high concern' for the community by 21.6% of survey respondents. Several focus group participants noted, for example, that there are few things for younger adults to do, especially in the winter months.

Participants in both key informant interviews and stakeholder dialogues discussed the impact of social isolation/loneliness on residents of the Cape. Social isolation/loneliness is particularly felt when the tourism season ends, as seasonal occupations end and there are fewer social events in the community. Participants acknowledged that all residents can be affected by social isolation and loneliness, most expressed concern for older adults and young adults. For older adults, the risk for isolation was made worse for residents who live alone and those who do not have a regular/local caregiver. The perceived impact for both groups included declines in mental health (e.g., increased anxiety, depression), and substance use/misuse. Young adults were viewed as having the highest risk for substance use disorder because the shift in the job market could lead to boredom, depression, and financial insecurity.

Environment and Safety

About 38% (37.8%) of community survey respondents identified environmental issues as a top concern for the community (**Figure 6**). When asked to rate their level of concern for specific issues, the issues of 'pedestrian or bicycle safety', 'air or water quality' were rated as a 'high concern' by the largest proportion of survey respondents at 27.9% and 26.9%, respectively (**Figure 17**).

FIGURE 17: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN", BY ENVIRONMENT AND SAFETY ISSUE



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,648

Environment-related health issues were identified by a few focus group participants who shared concerns about public water and bacteria in produce. A handful of key informant interviewees

expressed concern with rising sea levels, problems with water filtration, wastewater leeching into the groundwater supply, as well as tick and mosquito borne illness.

Crime and Violence

The majority of towns in Barnstable County have property crime rates that are on par or below the state rate of 1,437.0 crimes per 100,000 residents. However, the property crime rate is markedly higher in Provincetown (4,243.2 per 100,000).[18] The majority of towns in Barnstable County also have violent crime rates that are on par or below the state rate of 358.0 crimes per 100,000. However, the violent crime rate is higher in Provincetown (768.5 per 100,000), Truro (693.8 per 100,000), and Yarmouth (680.4 per 100,000).[19]

Twenty-one percent (21.0%) of community survey respondents identified violence and crime as a community social concern (**Figure 6**). The specific issues of 'property crime', 'interpersonal violence (e.g., domestic violence, sexual violence, bullying)', and 'community violence (e.g., gangs, guns, street crime)' were each rated as a 'high concern' for the community by about 15% of survey respondents. The issue of domestic violence came up consistently in focus groups and stakeholder dialogues. Focus group participants in particular noted that domestic violence is a concern for the Hispanic community and that access to services is limited by availability and fear in seeking help.

Community Health Issues

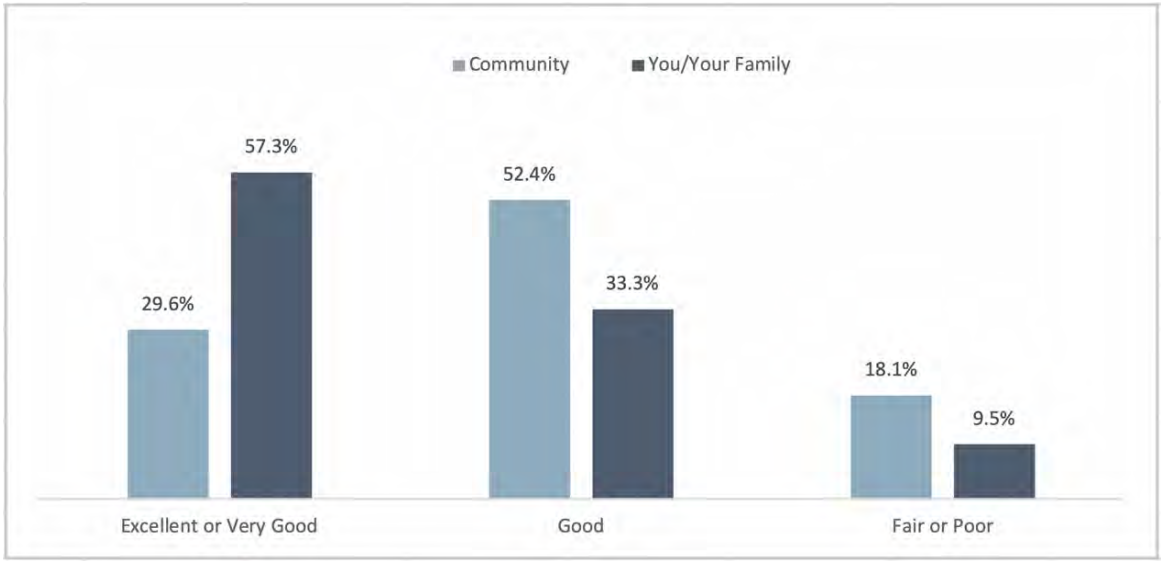
Overall Health and Mortality

Survey respondents generally rated their own/family's health higher than the health of the community (**Figure 19**). Overall, 18.1% of all survey respondents rated community health as 'Fair' or 'Poor', while 9.5% of all survey respondents rated their own/family's health as 'Fair' or 'Poor.' Survey respondents with low household incomes (<$35,000) were more likely to self-report their own/family's health as 'Fair' or 'Poor' (22.7%) compared to the overall survey sample, though their rating of the community's health was similar to the overall population (data not shown).

[18] Federal Bureau of Investigation, Criminal Justice Information Services (CJIS), Uniform Crime Reporting (UCR), Offenses Known to Law Enforcement, by State and by City, 2017; NOTE: Data not available for county; property crime includes burglary, larceny-theft, and arson.

[19] Federal Bureau of Investigation, Criminal Justice Information Services (CJIS), Uniform Crime Reporting (UCR), Offenses Known to Law Enforcement, by State and by City, 2017; NOTE: Data not available for county; violent crime includes murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.

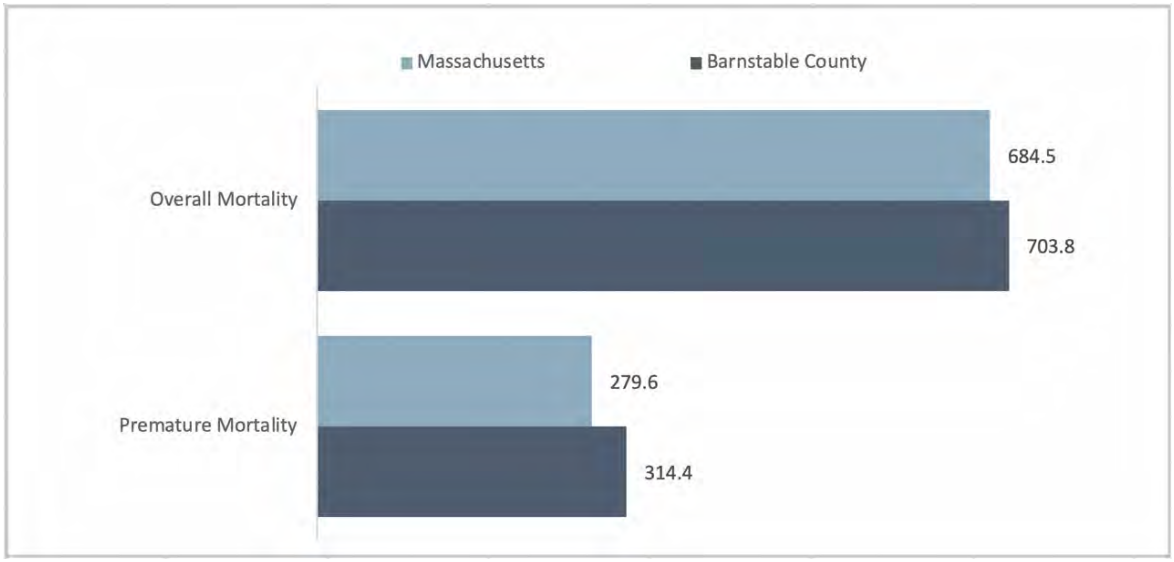
FIGURE 19: SELF-RATED HEALTH STATUS, OVERALL COMMUNITY AND SELF/FAMILY



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,791 (community) and n=1,999 (you/your family)

Overall, mortality rates for Barnstable County are on par with that of the state (**Figure 20**). Premature mortality rate (defined as deaths that occur before the age of 75) is slightly higher for Barnstable County than in the state, at 703.8 per 100,000 vs. 684.5 per 100,000 respectively. Several towns had premature mortality rates that were higher than the county, specifically Yarmouth (401.5 per 100,000) and Bourne (401.2 per 100,000).

FIGURE 20: OVERALL AND PREMATURE MORTALITY RATES PER 100,000 POPULATION, 2015



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015
NOTE: Rates shown are age adjusted; premature mortality is defined as deaths that occur before age 75

Existing data show that cancer and heart disease are the top two leading causes of death in Barnstable County and in Massachusetts (**Figure 21**). Injuries and poisonings ranks third for Barnstable County residents (compared to ranking fourth for the state overall) due, in part, to the higher rate of opioid-related deaths in Barnstable County. Alzheimer's disease ranks fourth for Barnstable County residents (compared to ranking sixth for the state overall), likely due to the older population in the County.

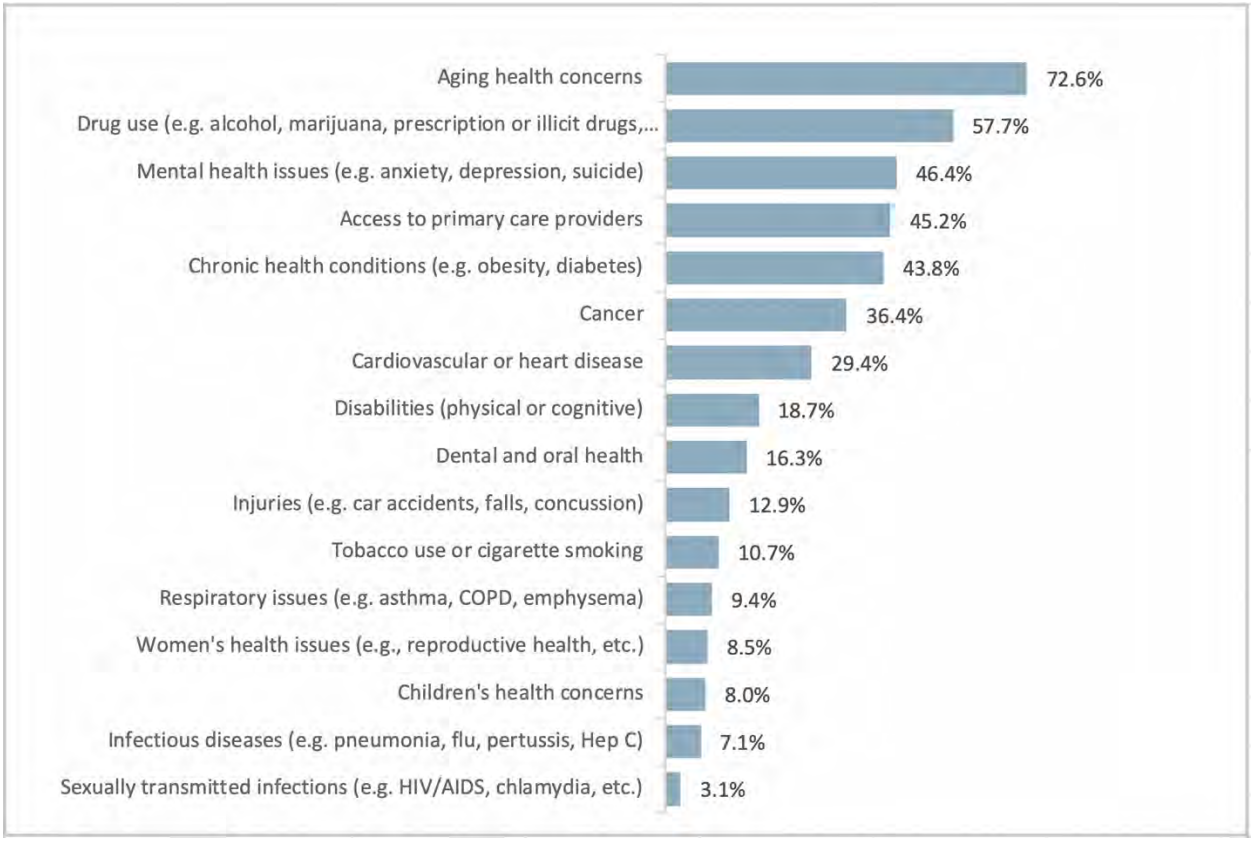
FIGURE 21: LEADING CAUSES OF MORTALITY, AGE-ADJUSTED RATES PER 100,000 POPULATION, 2015

RANK	MASSACHUSETTS	BARNSTABLE COUNTY
1	Cancer **152.8**	Cancer **164.1**
2	Heart disease **138.7**	Heart disease **149.8**
3	Injuries and Poisonings **58**	Injuries and Poisonings **80.1**
4	Chronic lower respiratory diseases **33**	Alzheimer's disease **29.2**
5	Cerebrovascular disease **28.4**	Cerebrovascular disease **28.7**
6	Alzheimer's disease **20.2**	Chronic lower respiratory diseases **28.5**
7	Pneumonia and Influenza **17.1**	Pneumonia and Influenza **17.7**

DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015

Among community survey respondents, the most frequently selected health issues impacting the community were 'aging health concerns' (72.6%), 'drug use' (57.7%), 'mental health issues' (46.4%), 'access to primary care' (45.2%), and 'chronic health conditions' (43.8%) (**Figure 22**).

FIGURE 22: PERCENT OF SURVEY RESPONDENTS IDENTIFYING ISSUE AS A TOP HEALTH CONCERN FOR COMMUNITY



DATA SOURCE: CCHC Community Health Survey, 2018

NOTES: Percentages were based on sample size of n=1,727; respondents were asked to select up to five responses; percentages may not sum to 100%

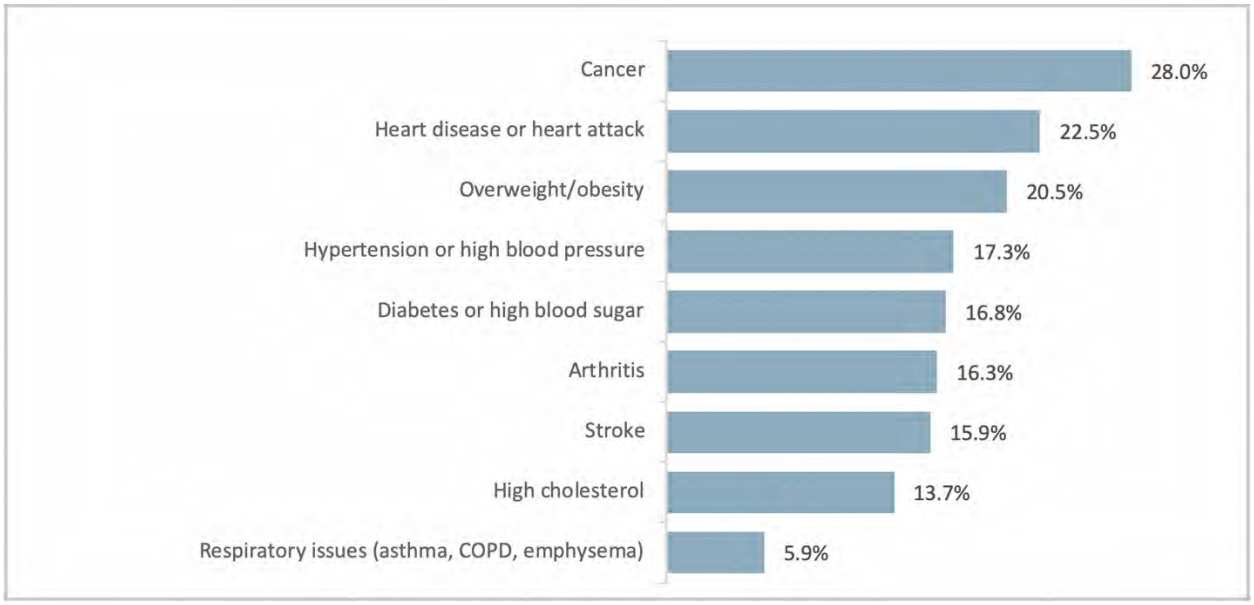
Survey respondents age 65 and older were more likely to select 'aging health concerns' as a top health concern for the community (81.7%) compared to the overall survey sample. Respondents that live on the lower or outer cape were more likely to select 'access to primary care providers' as a top health concern (57.6%) compared to the overall survey sample. Additionally, respondents of minority race/ethnicity and respondents with household incomes <$35,000 were more likely to select 'dental and oral health' as a top health concern (32.9% and 30.6%, respectively) compared to the overall survey sample.

Expanding health care services for seniors was consistently suggested by key informant interviewees and stakeholder dialogue participants. Participants saw a need for more geriatric providers, as well as enhanced capacity to address issues of dementia and Alzheimer's, including caregivers, caregiver support, and education. Key informant interviewees suggested expanded use of telemedicine to reach home-bound seniors. Several participants mentioned a need for more education and services related to falls prevention. In addition to general comments about increasing care quality and access for seniors, some participants felt that all Barnstable Councils on Aging should expand their current obligations in the community. Specifically, participants suggested that councils adopt a more active role in chronic disease management for seniors and intergenerational programming.

Chronic Disease

Chronic health conditions were consistently identified as a community concern by community survey respondents, focus group participants, stakeholder dialogue participants, and key informant interviewees. Of community survey respondents, 43.8% identified chronic disease as a top health concern for the community (**Figure 22**). When survey respondents were asked to rate their level of concern for specific physical health conditions impacting their community, the issues of 'cancer' (28.0%), 'heart disease or heart attack' (22.5%), and 'overweight/obesity' (20.5%) were rated as a 'high concern' by the largest proportion of survey respondents (**Figure 23**).

FIGURE 23: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN" FOR COMMUNITY, BY CONDITION



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,808

Cardiovascular Disease and Related Conditions

More than half of the Medicare population in Barnstable County currently has a diagnosis of hypertension or hyperlipidemia (61.9% and 55.5%, respectively), which is slightly higher than for the state (59.5% and 48.4%, respectively. About one quarter (25.8%) of the Medicare population in Barnstable County has a diagnosis of Ischemic Heart Disease, on par with the state (26.2%) (**Table 3**).

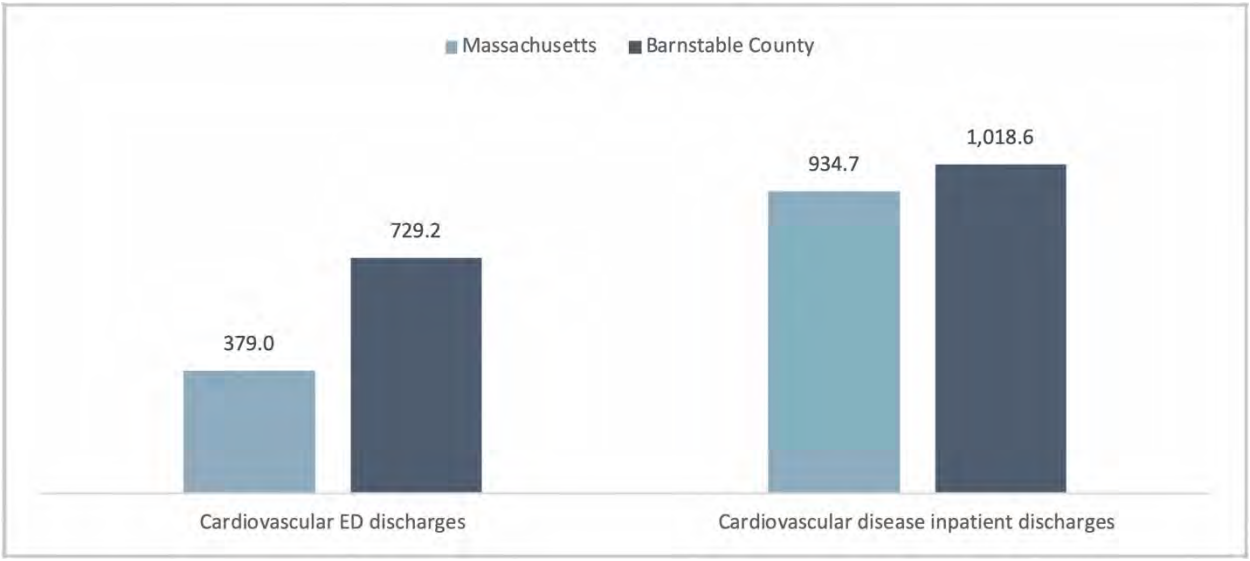
TABLE 3: PERCENT OF MEDICARE POPULATION DIAGNOSED WITH CARDIOVASCULAR-RELATED CONDITIONS, 2015

	MASSACHUSETTS	BARNSTABLE COUNTY
Hypertension	59.5%	61.9%
Hyperlipidemia	48.4%	55.5%
Ischemic heart disease	26.2%	25.8%
Chronic kidney disease	20.4%	18.1%
Heart failure	14.3%	12.2%
Stroke	4.2%	4.4%

DATA SOURCE: Center for Disease Control and Prevention, 2015
NOTE: Rates show are based on Medicare beneficiaries age 65 and older

The rate of cardiovascular disease emergency room discharges among Barnstable County residents is notably higher than for the state (729.2 per 100,000 vs. 379.0 per 100,000, respectively) (**Figure 24**). Cardiovascular disease inpatient discharge rates are similar between Barnstable County and the state (1,018.6 per 100,000 vs. 934.65 per 100,000, respectively). However, the rate is notably higher in some towns. Bourne, Falmouth, Dennis, Yarmouth, Barnstable, and Sandwich all have cardiovascular disease inpatient discharge rates that exceed 1,500.0 per 100,000.

FIGURE 24: CARDIOVASCULAR DISEASE EMERGENCY AND INPATIENT DISCHARGE RATES PER 100,000 POPULATION



DATA SOURCE: Inpatient Discharges - Fiscal Year 2017 Massachusetts Health Data Consortium; ED Discharges – Fiscal Year 2015 Massachusetts Health Data Consortium; based on Cape Cod hospital discharge data and using state weights for age adjustment.

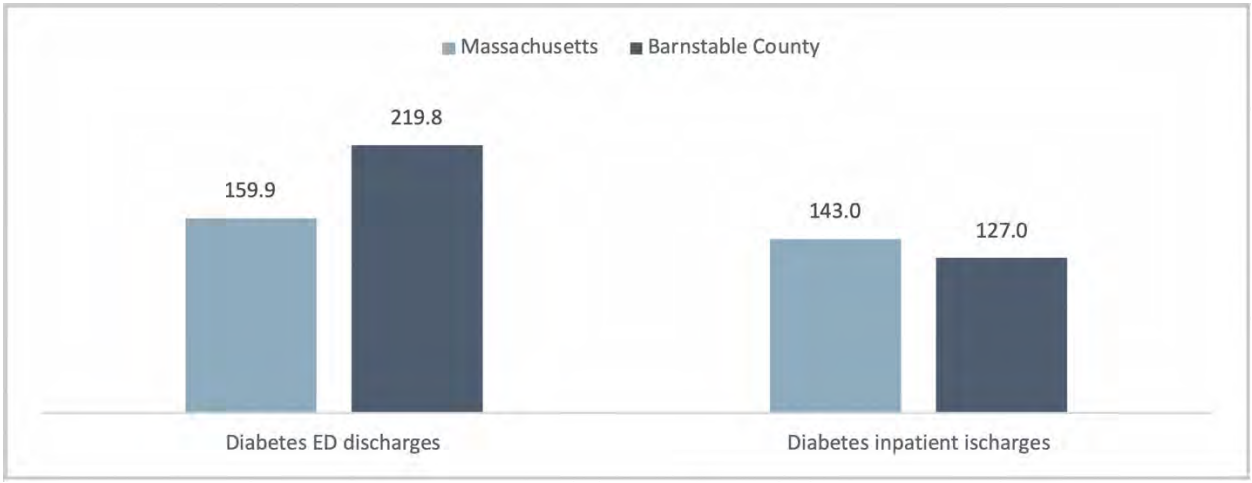
Heart disease mortality rates are similar in Barnstable County and the state (149.0 per 100,000 vs. 138.7 per 100,000).[20]

Diabetes

It is estimated that 8% of Barnstable County adults aged 20 and older have been diagnosed with diabetes compared to 9% in MA overall.[21] More recent data based on the patient populations served by three Federally Qualified Health Centers located within Barnstable County suggest that between 6 to 10% of adults' age 18-75 have a current diabetes diagnosis.[22]

The rate of diabetes-related emergency department visits among Barnstable County residents is higher than for the state (219.8 per 100,000 vs. 159.9 per 100,000) (**Figure 25**). The overall diabetes inpatient discharge rate is slightly lower in Barnstable County than the state (127.0 per 100,000 vs. 143.0 per 100,000). However, several towns have higher rates than the county, specifically Bourne (206.8 per 100,000), Dennis (194.5 per 100,000), Mashpee (194.4 per 100,000), and Orleans (187.5 per 100,000).

FIGURE 25: DIABETES EMERGENCY DEPARTMENT AND INPATIENT DISCHARGE RATE PER 100,000 POPULATION



DATA SOURCE: Inpatient Discharges - Fiscal Year 2017 Massachusetts Health Data Consortium; ED Discharges – Fiscal Year 2015 Massachusetts Health Data Consortium; based on Cape Cod hospital discharge data and using state weights for age adjustment.

Cancer

Over one third (36.4%) of community survey respondents identified cancer as a top health concern in the community (**Figure 22**), and over one quarter (28.0%) of community survey respondents rated cancer as a 'high concern' for the community (**Figure 23**). The overall cancer incidence rate is slightly higher among Barnstable County residents than for the state, at 539.0 per 100,000 vs. 508.5 per

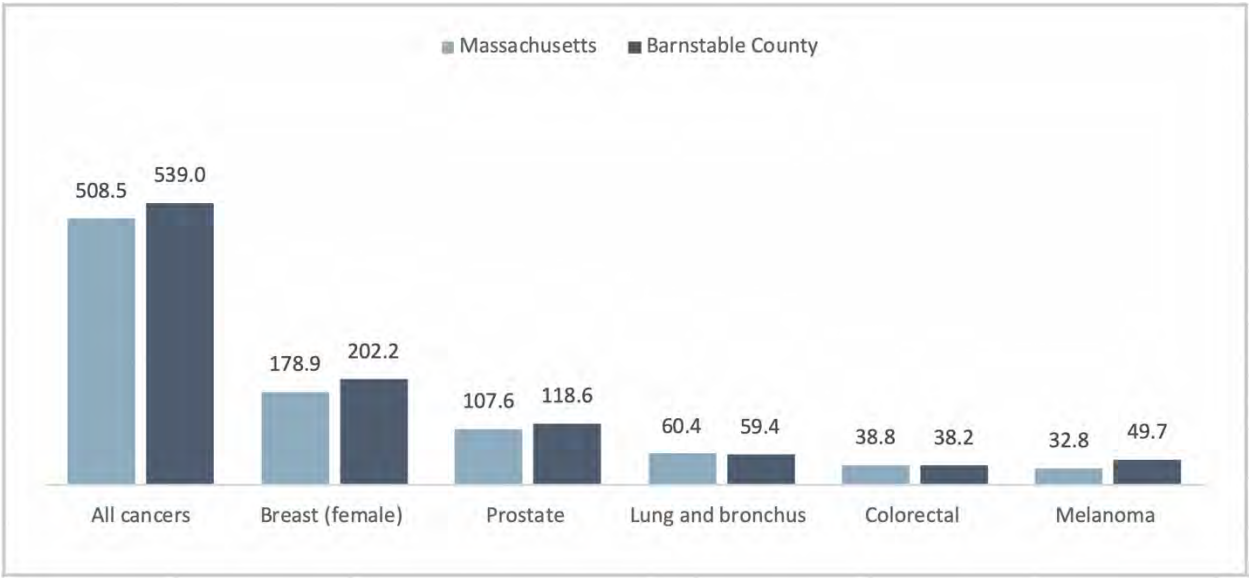
[20] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015.

[21] CDC Diabetes Interactive Atlas, based on 3-years of aggregated BRFSS data, 2014.

[22] Health Resources & Services Administration (HRSA), Health Center Program Grantee Data, Uniform Data System (UDS), 2017; NOTE: Rates shown are based upon adult patients age 18 to 75.

100,000, respectively. The incidence rates for several specific cancer types are also slightly higher for Barnstable County residents including breast cancer, prostate cancer, and melanoma, compared to the state (breast cancer: 202.2 per 100,000 vs. 178.9 per 100,000; prostate cancer: 118.6 per 100,000 vs. 107.6 per 100,000; melanoma: 49.7 per 100,000 vs. 32.8 per 100,000 respectively) (**Figure 26**).

FIGURE 26: CANCER INCIDENCE RATE PER 100,000 POPULATION BY TYPE, 2011-2015

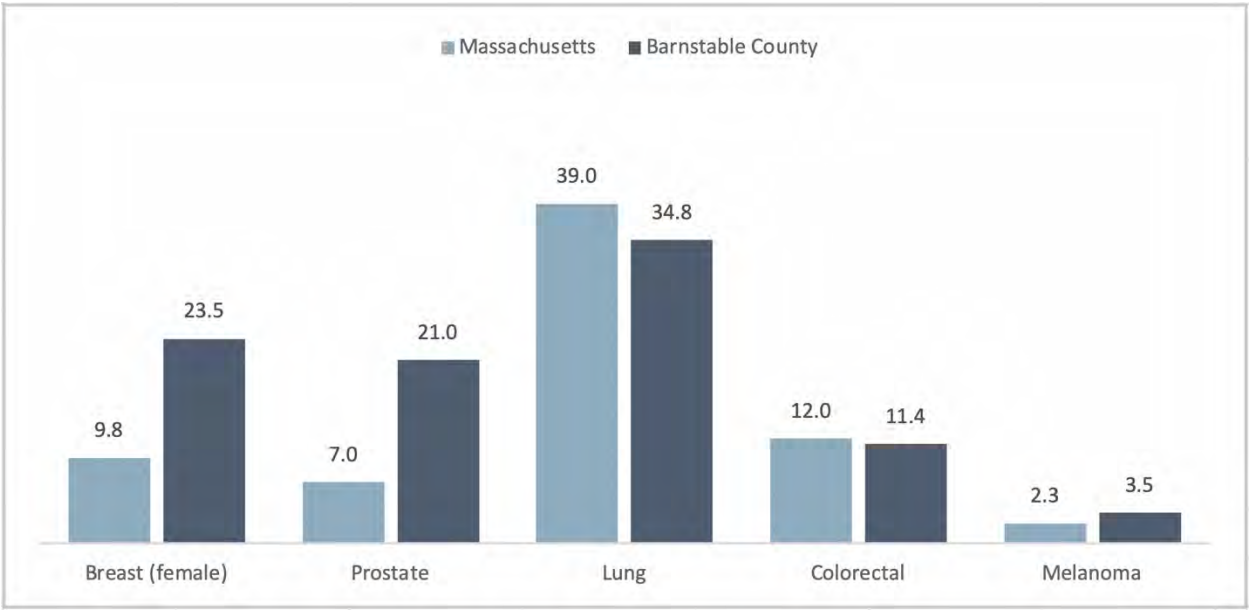


DATA SOURCE: Massachusetts Cancer Registry, 5-year Profile 2011-2015. NOTE: Rates shown are age adjusted

The overall cancer mortality rate is similar in Barnstable County and the state (163.2 per 100,000 vs. 152.8 per 100,000, respectively).[23] However, the mortality rates for breast and prostate cancers are over twice that for the state (breast cancer: 23.5 per 100,000 vs. 9.8 per 100,000; prostate cancer: 21.0 per 100,000 vs. 7.0 per 100,000, respectively) (**Figure 27**). Key informant interviewees identified both skin and breast cancer as important and emerging concerns for the community.

[23] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015.

FIGURE 27: CANCER MORTALITY RATE PER 100,000 POPULATION BY TYPE, 2015



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015
NOTE: Rates shown are age adjusted

Respiratory Health

Respiratory conditions, such as asthma, Chronic Obstructive Pulmonary Disorder (COPD), and emphysema were not identified as a leading health issue in the community by community survey respondents (**Figure 22**). However, these conditions impact individual well-being and may be related or exacerbated by environmental factors, such as exposure to tobacco smoke or unhealthy homes (e.g., mold, pests, etc.).

The asthma inpatient discharge rate is lower in Barnstable County than the state (34.3 per 100,000 vs. 62.1 per 100,000) respectively data for the patient populations served by three FQHCs located within Barnstable County suggest that between 5% and 10% of patients have a current asthma diagnosis.[24] Within the public school population, 9.8% of students in Barnstable County have a current asthma diagnosis which is the same as the state (9.8%). However, several school districts have higher proportions of students with asthma than the county overall, specifically Falmouth (15.8%) and Mashpee (14.9%).[25]

The overall rate of COPD inpatient discharges is much lower for Barnstable County than for the state (119.0 per 100,000 vs. 246.8 per 100,000).

[24] Health Resources & Services Administration (HRSA), Health Center Program Grantee Data, Uniform Data System (UDS), 2017
[25] Massachusetts Department of Public Health, Bureau of Environmental Health, 2016-2017; Rates are based on public school students in K through 8th grade.

Alzheimer's Disease

> *"We're an older population to start with and as more and more of our seniors are not able to care for themselves, it is creating some stresses on our nursing homes, our assisted living facilities."* (Key Informant Interviewee)

The population of Barnstable County is older than the state overall and has a higher proportion of residents over age 75. Key informant interviewees and stakeholder dialogue participants shared concerns about the growing prevalence of Alzheimer's disease and dementia in the community, and the ability of the health and social systems to address them. They reported that the community does not have a sufficient number of physicians and other health professionals skilled in geriatric issues. Noting that many seniors prefer to "age in place," respondents also shared that one of the biggest current challenges is finding enough in-home workers to effectively care for Alzheimer's patients and residents over age 70. The demand for these types of services is expected to increase in the coming years, yet Barnstable County's younger population of potential caregivers is declining.

The 2018 Massachusetts Healthy Aging Community Data profile cites Center for Medicare data indicating that the rate of Alzheimer's disease or related dementias among those age 65 or older ranges from a low of 6.0% in Wellfleet to a high of 11.7% in Bourne, with all of Barnstable County having a lower rate compared to the state (13.6%).[26] Alzheimer's disease inpatient discharge rates are the same in Barnstable County and the state, with both rates at 20.9 per 100,000.[27] Alzheimer's disease mortality rates are higher in Barnstable County compared to the state (29.2 per 100,000 vs. 20.2 per 100,000, respectively).[28]

Behavioral Health

> *"It's addiction and it's mental health. And they are often connected, and they often end up in our correctional facility or our offices are dealing with them on the street as part of the homeless population or the drug trade."* (Key Informant Interviewee)

> *"The lack of resources is a problem. The lack of ability to find care and find treatment causes constant, perpetual calls for service from the police department."* (Key Informant Interviewee)

Mental health and substance use were seen as both deeply intertwined and pervasive concerns in Barnstable County. Behavioral health was identified as a top health concern across key informant interviewees, focus group participants, and stakeholder dialogue participants. Mental health and substance use were also identified as two of the top three health concerns (by 46.4% and 57.7% of community survey respondents, respectively) (**Figure 22**). Several focus group participants named the opioid crisis specifically, but many named depression, anxiety, and substance use disorder as overarching issues.

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[26] Massachusetts Healthy Aging Community Data Profile, 2018, Tufts Health Plan Foundation, https://mahealthyagingcollaborative.org/data-report/explore-the-profiles/.

[27] Fiscal Year 2017 Massachusetts Health Data Consortium; Based on Cape Cod hospital discharge data and using state weights for age adjustment.

[28] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015; Rates shown are age adjusted.

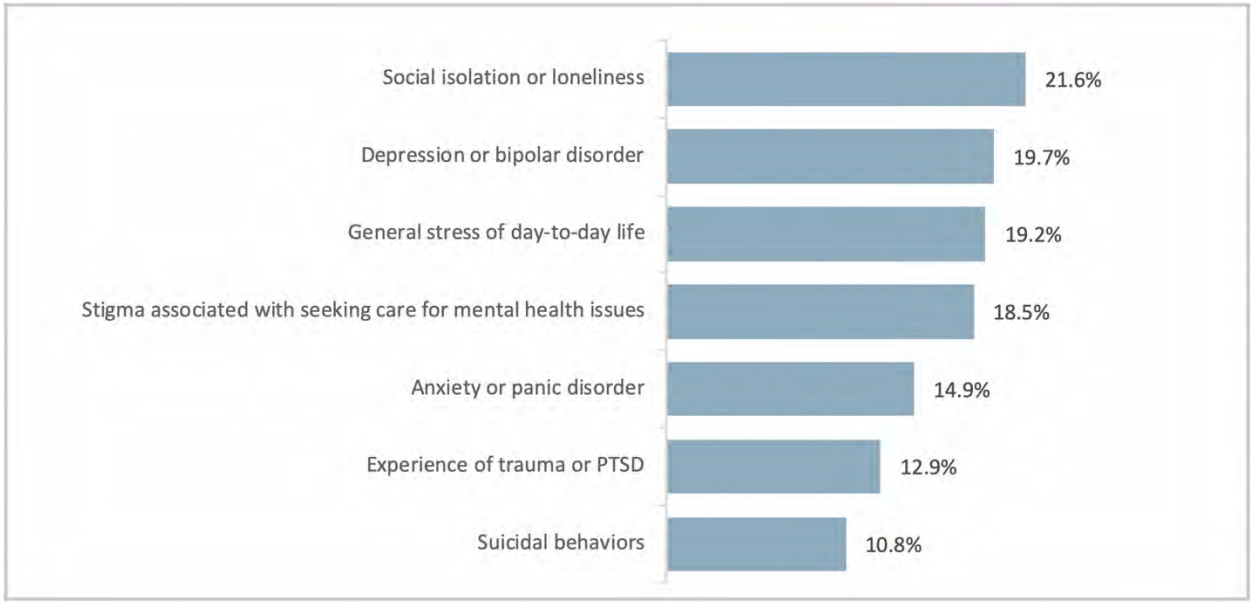
While participants agreed that the risk for behavioral health problems transcends age groups, young adults (approximately age 18 to 26 years) were perceived to be at high risk.

Mental Health

Forty-six percent (46.4%) of community survey respondents identified mental health as a community concern, ranking it third among all concerns (**Figure 22**). Among key informant interviewees, focus group participants, and stakeholder dialogue participants, mental health concerns were also named a top issue. They mentioned anxiety and depression as well as trauma, including both adverse childhood experiences and post-traumatic stress disorder. A number of underlying causes of mental health issues were discussed, including economic instability, lack of things for young adults to do, and isolation in the off-season.

The issues of 'social isolation or loneliness', 'depression or bipolar disorder', and 'the general stress of day-to-day life' were rated as mental health issues of 'high concern' for the community by the largest proportions of survey respondents (21.6%, 19.7%, and 19.2%, respectively) (**Figure 28**). Survey respondents of minority race/ethnicity were more likely to rate 'depression or bipolar disorder' (31.3%) and 'suicidal behaviors' (23.8%) as a 'high concern' for the community compared to the overall survey sample.

FIGURE 28: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN" FOR THE COMMUNITY, BY MENTAL HEALTH CONDITION



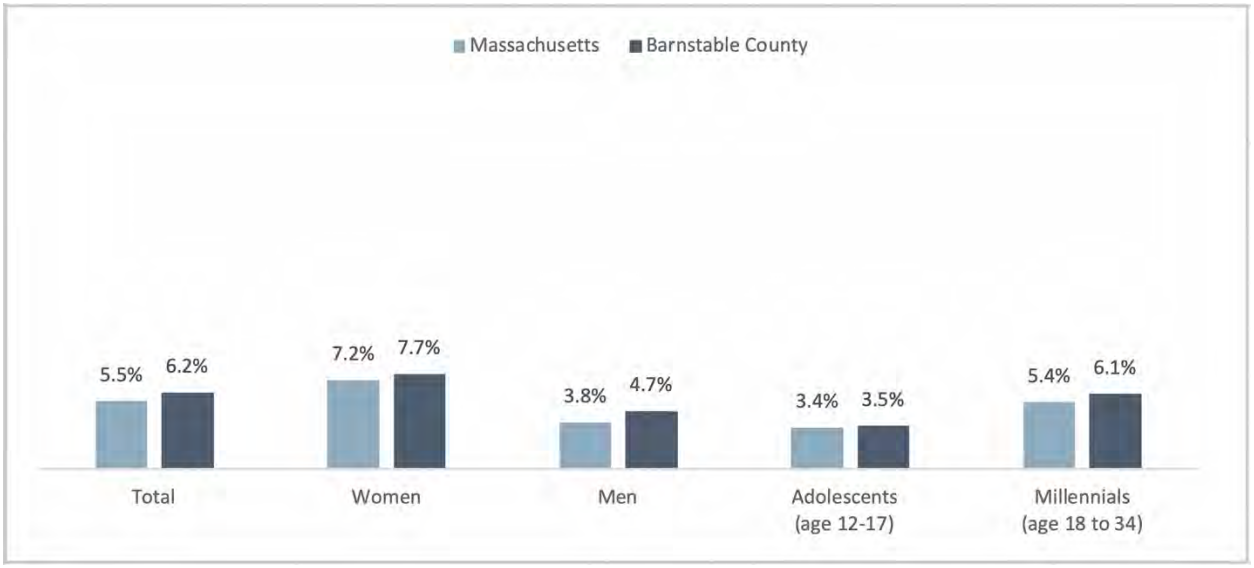
DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,808

Existing data related to the prevalence of mental health conditions or experiences of poor mental health are limited. Self-reported data suggest similar proportions of adults in Barnstable County and the state overall report 14 or more days of poor mental health in the prior month (11% vs. 12%).[29]

[29] Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, as reported by County Health Rankings, 2016.

Data on diagnoses of depression indicate rates are slightly higher among residents in Barnstable County than for the state overall, at 6.2% compared to 5.5%, respectively. Within Barnstable County, depression diagnoses rates were higher among women compared to men (7.7% vs 4.7%) and among residents age 18 to 34 years compared to residents aged 12 to 17 (6.1% vs. 3.5%) (**Figure 29**).

FIGURE 29: DEPRESSION DIAGNOSIS RATES, 2016



DATA SOURCE: 2016 Depression Diagnosis Rates by MSA, Blue Cross Blue Shield Foundation Report: Major Depression-The Impact on Overall Health, 2018

The overall inpatient discharge rate for mental health conditions is higher in Barnstable County than the state (507.4 per 100,000 vs. 424.3 per 100,000, respectively). Several towns had higher rates compared to the county, specifically Provincetown (755.8 per 100,000), Chatham (751.3 per 100,000), Dennis (673.5 per 100,000), Yarmouth (641.3 per 100,000), and Barnstable (637.8 per 100,000).[30]

The overall suicide mortality rate in Barnstable County is notably higher than the state (16.7 per 100,000 vs. 9.0 per 100,000). The rate in Bourne (20.6 per 100,000) and Barnstable (20.4 per 100,000) are higher than the county rate. However, in most towns, deaths due to suicide are low and rates are not reportable.[31]

Throughout the interviews, key informant interviewees identified younger residents as vulnerable to mental and behavioral health issues due to the lack of economic mobility and lack of targeted community programming. Interviewees saw a need for enhanced services for this group. Additionally, while Barnstable County was seen as *"veteran-friendly*," a handful of interviewees recognized that there are still barriers and health concerns related to this population.

Access to mental health services was described as a substantial barrier in Barnstable County. Twenty-nine (28.9 %) percent of community survey respondents rated counseling or mental health care for

[30] Fiscal Year 2017 Massachusetts Health Data Consortium; Based on Cape Cod hospital discharge data and using state weights for age adjustment.

[31] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015.

adults as 'hard' or 'very hard' to access and 25.4% of respondents rated mental health services for children/adolescents similarly. Participants in interviews and stakeholder dialogues stated that there is a shortage of mental and behavioral health services in the community, particularly psychiatrists, nurse practitioner psychiatrists, and in-patient services for children and adolescents. Interviewees also noted a lack of "wraparound" services when patients leave mental/behavioral health treatment.

When asked what was needed to address mental health issues in Barnstable County, key informant interviewees, focus group participants, and stakeholder dialogue participants stated that the region needs more services to address mental health issues. One key informant interviewee suggested that one way to address this would be for primary care clinics to provide care for less complicated psychiatric conditions, so that psychiatrists could focus on people with more complicated conditions. Participants also reported that more prevention of mental health problems was needed as well as efforts that reduce the stigma surrounding behavioral health.

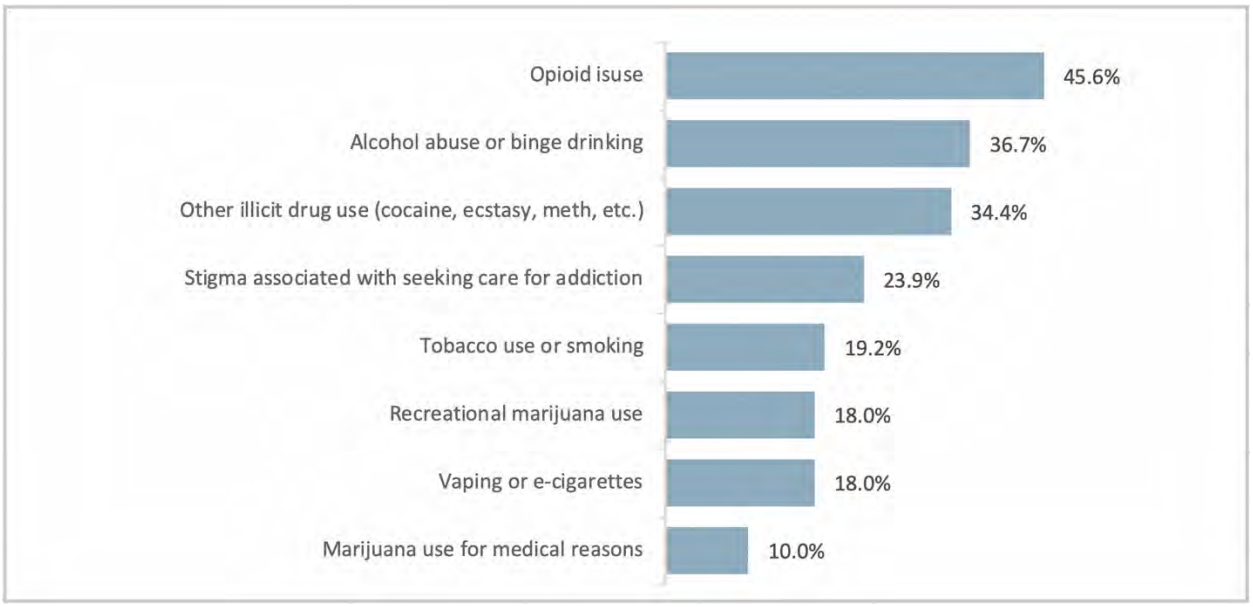
Substance Use

> *"The largest concern facing the Cape…is the opioid-fentanyl drug problem. It's literally impacted every community – rural, urban, and suburban. There are no demographic lines, there are no town lines, there's no socioeconomic lines. It has affected the wealthy, the educated, the poor and we have a higher number of, not only overdoses, but people in treatment. It has been the issue for at least five years affecting virtually every part of the Cape."* (Key Informant Interviewee)
>
> *"Addiction is another problem in our community. Access to services related to addiction is difficult."* (Focus Group Participant)

Substance use was noted as a primary concern for Barnstable County. The opioid epidemic was mentioned most frequently, and participants stated that it has impacted all age groups and communities, as well as the criminal justice system, employment, and homelessness. Tobacco use and alcohol use disorder were mentioned as concerns as well. Participants also expressed concern about the growth in the use of marijuana since legalization and the popularity of vaping among young people.

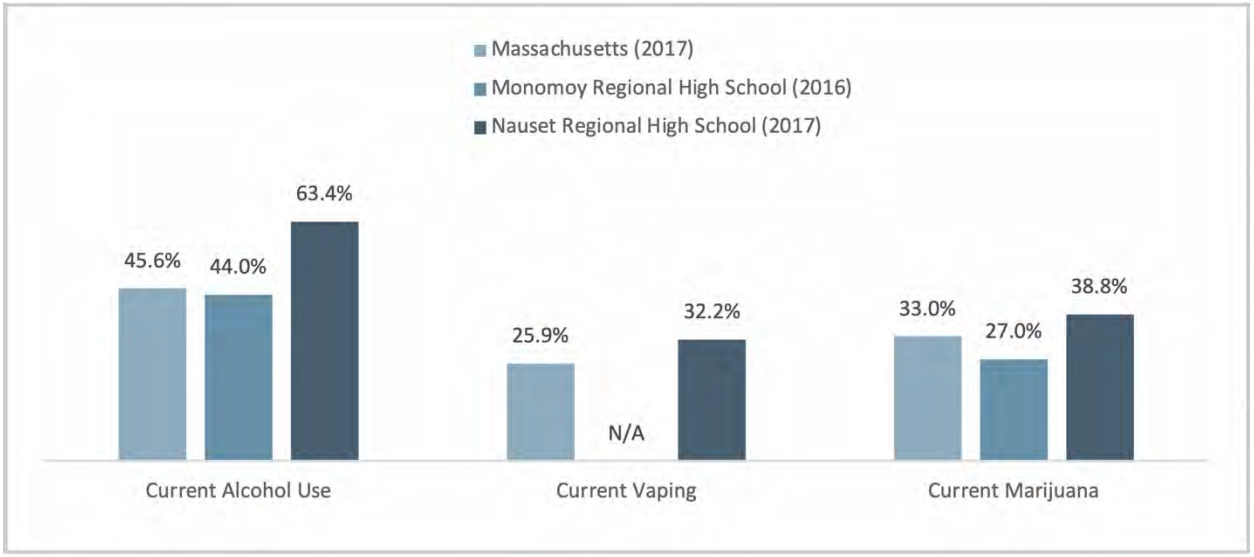
Substance use was identified as the second top health concern among community survey respondents, with over half (57.7%) of respondents identifying this as a top health concern (**Figure 22**). When survey respondents were asked to rate their level of concern for specific substance use issues impacting their community, the issues of 'opioid misuse, 'alcohol or binge drinking', and 'other illicit drugs' were rated as a 'high concern' by the largest proportion of survey respondents (45.6%, 36.7%, and 34.4% respectively) (**Figure 31**). Survey respondents of minority race/ethnicity were more likely to rate 'other illicit drugs' (47.5%) and 'vaping or e-cigarettes' as a 'high concern' for the community (33.8%) compared to the overall survey sample.

FIGURE 31: PERCENT OF SURVEY RESPONDENTS REPORTING "HIGH CONCERN" FOR THE COMMUNITY, BY SUBSTANCE ABUSE ISSUE



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,808

FIGURE 32. PERCENT OF 12TH GRADERS REPORTING SUBSTANCE USE IN PRIOR 30 DAYS, 2016-2017



DATA SOURCE: Youth Health Survey, MA Department of Health (2017), Monomoy Regional High School (2016), and Nauset Regional High School (2017). NOTE: Rates shown reflect students in grade 12 only

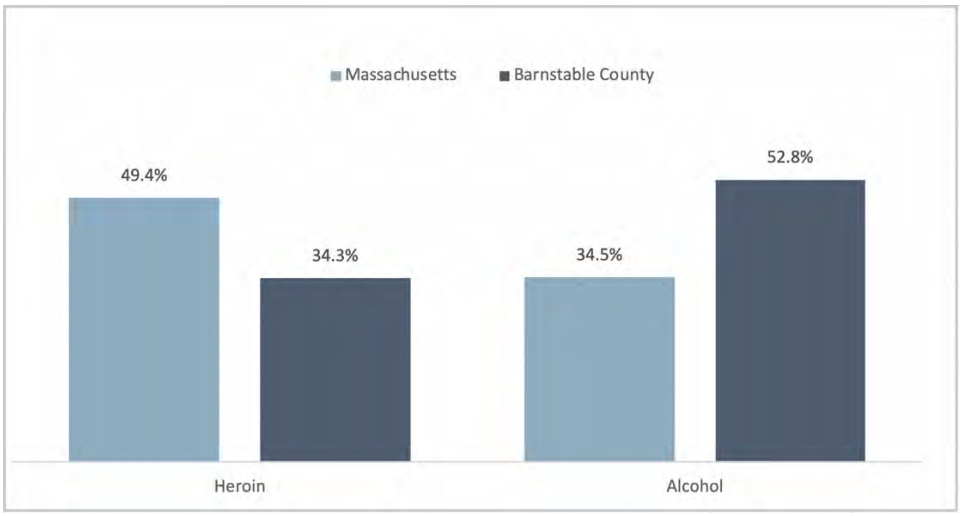
Existing data on the prevalence of substances use is sparse. Available self-reported data indicate similar proportions of adults who binge drink (approximately 20%) or smoke cigarettes (approximately 14%) in Barnstable County and the state overall.[32]

Vaping in particular is emerging as a serious issue for adolescents nationally, in Massachusetts, and in Barnstable County. Self-reported vaping among high school seniors, for example, has increased by ten percentage points (from 27.8% to 37.3%) nationwide between 2017 and 2018.[33] In Massachusetts in 2015, almost half of high school students reported that they have ever used an electronic vapor product.[34] (**Figure 32**)

Substance abuse-related inpatient discharge rates are lower in Barnstable County than the state (158.3 per 100,000 vs. 264.5 per 100,000). One town, Falmouth, has a rate that exceeds the state rate (273.8 per 100,000).[35]

Data from the Massachusetts Bureau of Substance Abuse Services (BSAS) demonstrates that the overall substance abuse treatment admission rate is higher in Barnstable County than the state (1,979.9 per 100,000 vs. 1,564.5 per 100,000).[36] Over half (52.8%) of all BSAS admissions in Barnstable County were for alcohol, which is a higher proportion than the state, at 34.5% (**Figure 33**).

FIGURE 33: PERCENT OF BSAS TREATMENT ADMISSIONS LISTING ALCOHOL AND HEROIN AS PRIMARY SUBSTANCE, FISCAL YEAR 2018



DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Office of Statistics and Evaluation, Fiscal Year 2018

[32] Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, as reported by County Health Rankings, 2016.

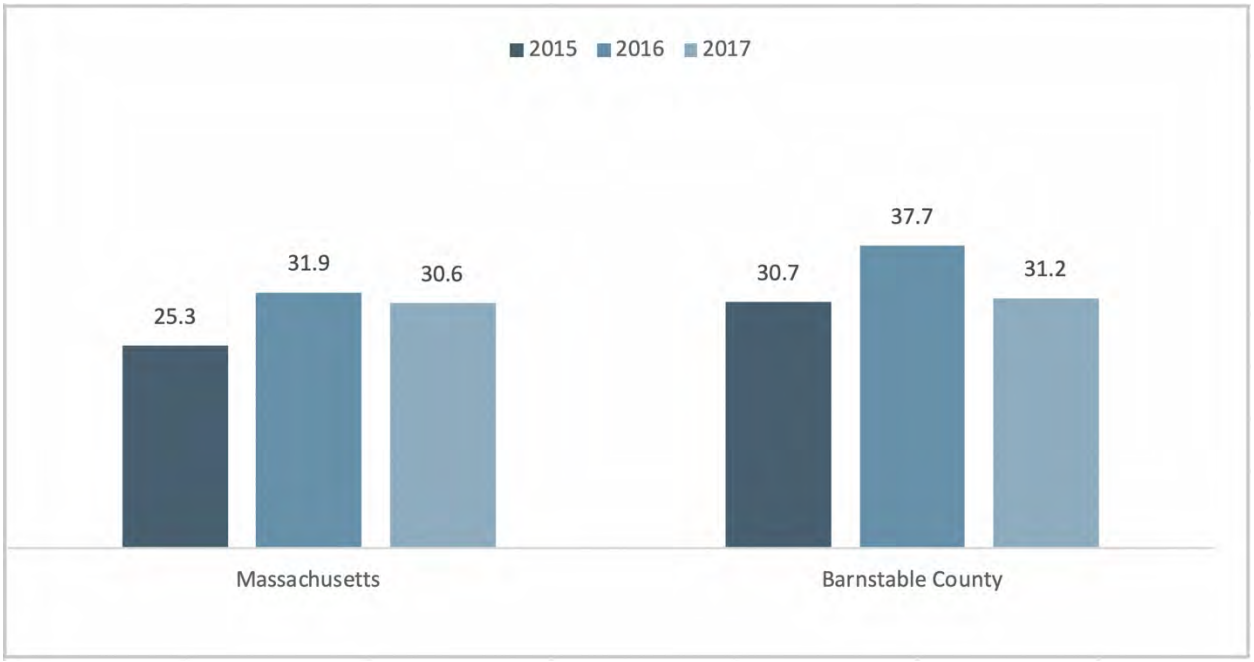
[33] https://www.drugabuse.gov/news-events/news-releases/2018/12/teens-using-vaping-devices-in-record-numbers
[34] https://www.mass.gov/files/documents/2016/09/vp/youth-health-risk-report-2015.pdf
[35] Fiscal Year 2017 Massachusetts Health Data Consortium; Based on Cape Cod hospital discharge data and using state weights for age.

[36] Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Office of Statistics and Evaluation, Fiscal Year 2018. NOTE: Rates are crude rates, calculated using the total population counts cited in US Census. American Community Survey 5-Year Estimates, 2012-2016.

The overall opioid mortality rate in 2015 was higher in Barnstable County than the state (41.0 per 100,000 vs. 24.6 per 100,000, respectively).[37] The rates in Mashpee (80.8 per 100,000), Falmouth (65.0 per 100,000), and Yarmouth (58.9 per 100,000) were also higher, although in most towns, deaths due to opioids are low and rates are not reportable from the MA DPH.

More recent preliminary data on opioid-related overdose deaths for 2016 and 2017 suggest slight downward trends both statewide (from 31.9 to 30.6 per 100,000) and in Barnstable County (from 37.7 to 31.2 per 100,000) (**Figure 34**). However, these data should be considered only preliminary rates that are likely to change as final mortality data are not yet available from MA DPH after 2015.

FIGURE 34: ESTIMATED RATE OF OPIOID-RELATED OVERDOSE DEATHS PER 100,000 POPULATION, 2015-2017



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records, Current Opioid Statistics NOTE: Data only includes confirmed cases – 2016 and 2017 data are preliminary and subject to updates (data current as of 10/25/2018)

As described earlier, key informant interviewees discussed, and existing data show the impact of the opioid crisis on family structures, specifically the higher number of grandparents raising grandchildren. Responsibility for grandchildren can be a source of emotional and financial stress for grandparents, having negative consequences for their physical and mental health. This has substantial implications for the health and social services supporting seniors in the community.

When asked about substance use treatment facilities in the community, interviewees and stakeholder dialogue participants reported that current facilities were insufficient and at capacity and as a result, residents are transported out of the county to receive treatment. Over 20% of community survey respondents rated alcohol or drug treatment services for adults (22.3%) and youth (21.9%) as 'hard' or 'very hard' to access. Interviewees and stakeholder dialogue participants cited a need for more treatment beds, sober houses, and community-based services.

[37] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015. NOTE: Rates are age adjusted.

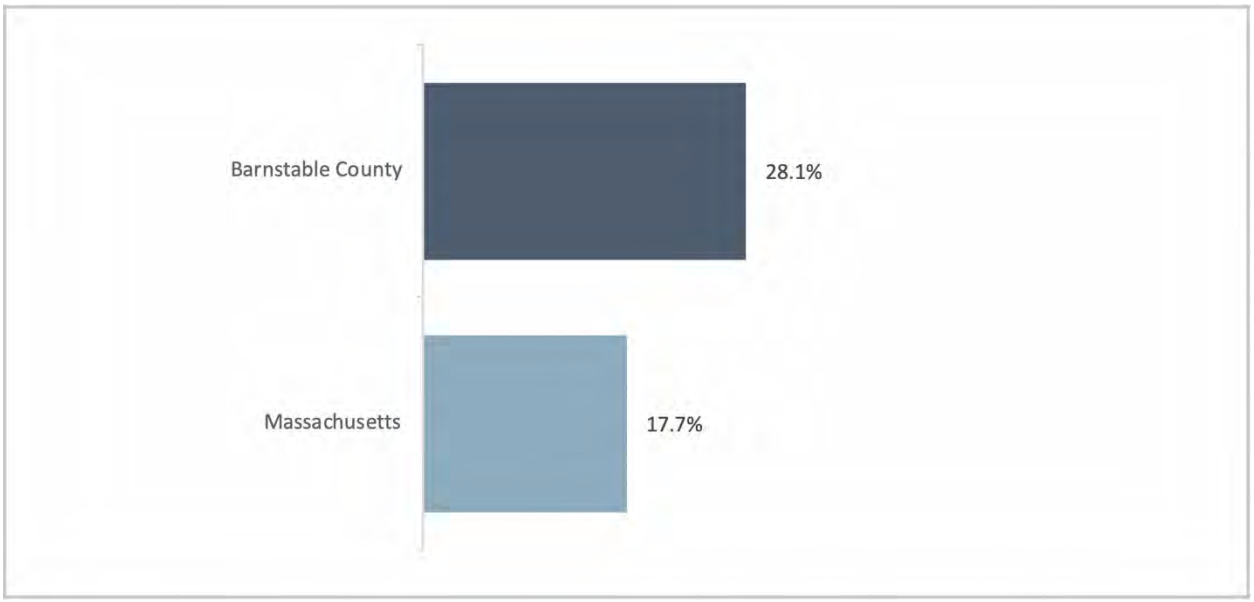
Overall, participants agreed that there is a need for more availability of regionalized care so that residents can live and work in their own community while receiving treatment for drug and alcohol use disorders. Participants also saw a need for better care coordination including through hospital social workers and patient navigators, follow-up visits to homes after overdose, and re-entry supports for those being released from prison. Finally, participants suggested more education, both relative to substance use prevention (and beginning with children) and relative to addressing the stigma associated with behavioral health and seeking care.

Maternal and Child Health

Maternal and child health were not prominent topics identified by key informant interviewees, focus group participants, stakeholder dialogue participants, or community survey respondents. However, existing data highlight some potentially important issues related to the current health of mothers and children in Barnstable County. A total of 1,601 births occurred in 2016 to residents of Barnstable County.[38] Over half of these were to women in the towns of Barnstable (424 births), Falmouth (241 births), and Yarmouth (170 births). Teen birth rates (births to mothers aged 15 to 19 years) were slightly lower in Barnstable County than the state (7.4 per 1,000 vs. 8.5 per 1,000) in 2016.[39]

Over one quarter (28.1%) of women who gave birth in Barnstable County were identified as having inadequate prenatal care, a proportion that is higher than the state (17.7%) (**Figure 35**).

FIGURE 35: PERCENT OF BIRTHS WITH INADEQUATE PRENATAL CARE, 2016

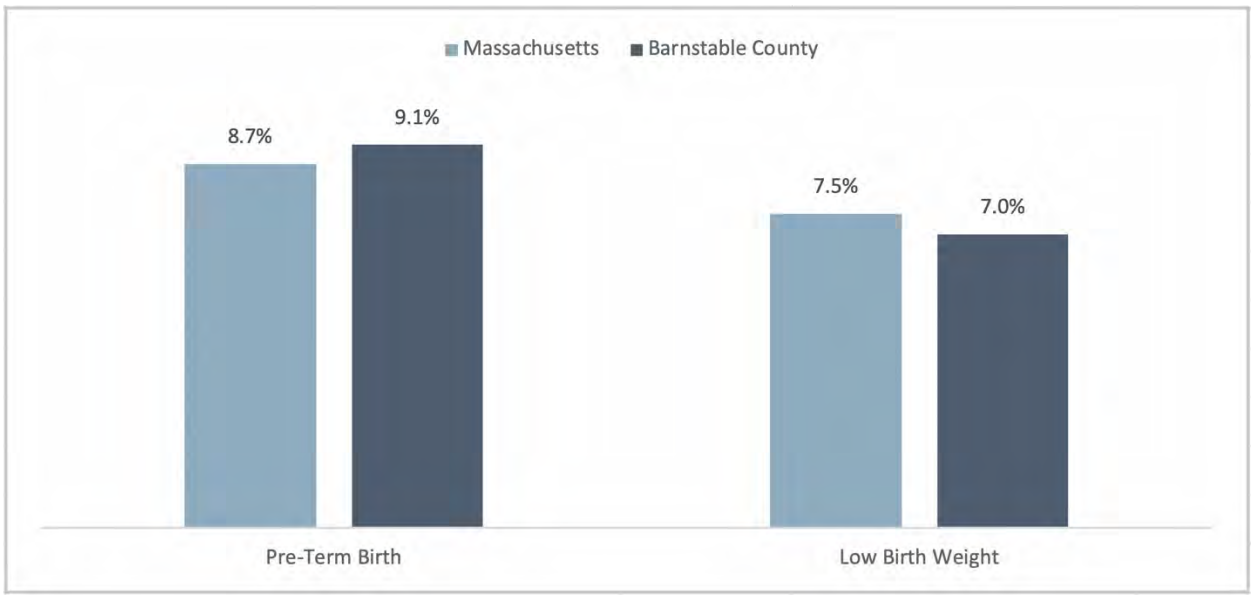


DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016
NOTE: Inadequate prenatal care defined as care that began month 5 or later and/or less than 50% of expected prenatal care received.

[38] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016.
[39] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016.

The proportion of births that are pre-term (<37 weeks gestation) is similar for Barnstable County and the state overall (9.1% vs. 8.7%, respectively) (**Figure 36**).

FIGURE 36: PERCENT OF BIRTHS THAT ARE PRE-TERM OR LOW BIRTH WEIGHT, 2016



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016

The proportion of births that are low birth weight is also similar for Barnstable County and the state (7.0% vs. 7.5%, respectively). However, the infant mortality rate for Barnstable County is twice as high as the state rate (8.8 per 1,000 vs. 4.3 per 1,000, respectively).[40]

Infectious Disease

Sexually Transmitted Infections

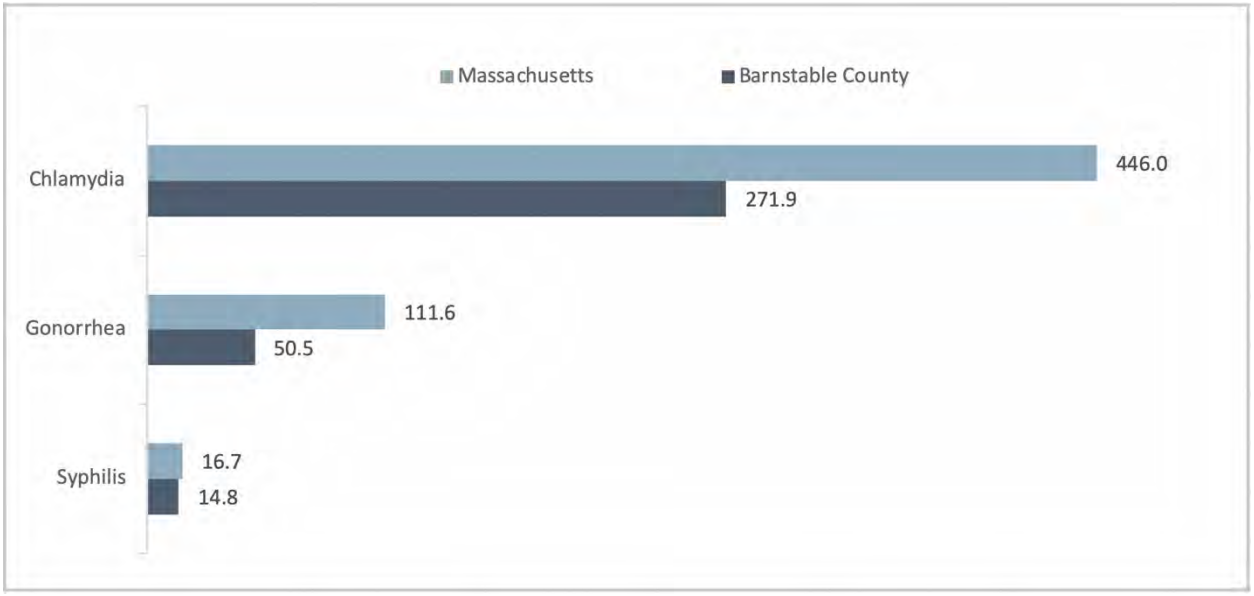
Sexually transmitted infections (STI) and infectious disease in general, were not identified as prominent topics by community survey respondents (**Figure 22**). However, several key informant interviewees and stakeholder dialogue participants identified STIs as problematic in Barnstable County, particularly the stigma associated with HIV/AIDS. As one stakeholder dialogue participant said, *"People will avoid care to avoid that stigma."*

Barnstable County has the third highest HIV prevalence rate of all counties in Massachusetts (385 per 100,000) behind Suffolk County (846 per 100,000) and Hamden County (481 per 100,000) and is slightly above the state rate (338 per 100,000).[41] The annual incidence rate for HIV in Barnstable County was on par with the state (8.2 per 100,000 vs. 9.7 per 100,000) between the years of 2014 and 2016.[42]

[40] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015.
[41] National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention as reported by County Health Rankings, 2015; NOTE: Rates are based on population age 13 years and older.
[42] Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. 2018 Massachusetts HIV/AIDS Epidemiologic Profile: Regional HIV/AIDS Epidemiologic Profile of Barnstable County.

The rate of reported chlamydia cases is lower in Barnstable County than the state (271.9 per 100,000 vs. 446.0 per 100,000, respectively) (**Figure 37**). Likewise, the overall rate of reported gonorrhea cases is lower in Barnstable County than the state (50.5 per 100,000 vs. 111.6 per 100,000, respectively). The rate of reported syphilis cases in Barnstable County is on par with the state (14.8 per 100,000 vs. 16.7 per 100,000). While most towns' rates are similarly low, Provincetown has markedly high rates of chlamydia (1,156.1 per 100,000), gonorrhea (1,054.1 per 100,000), and syphilis (544.1 per 100,000).

FIGURE 37: CHLAMYDIA, GONORRHEA AND SYPHILIS CASE RATES PER 100,000 POPULATION, 2017

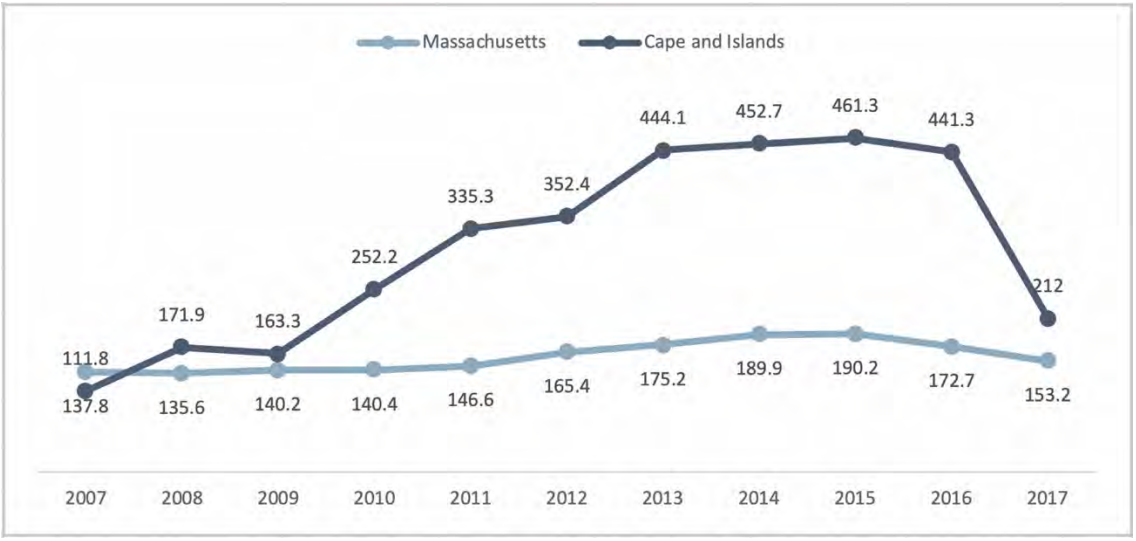


DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance and Informatics Services, 2017. NOTE: Rates shown are based on confirmed and probable cases

The Hepatitis C rate in Barnstable County is on par with the state (113.4 per 100,000 vs. 116.4 per 100,000, respectively). However, the rate is higher in several towns, including Falmouth (174.4 per 100,000), Bourne (141.7 per 100,000), and Yarmouth (130.3 per 100,000).[43] The number and rate of new Hepatitis C cases among persons 15-29 years of age increased dramatically between 2009 and 2015 in both the state (from 140.2 to 190.2 per 100,000) and in Barnstable County (from 163.3 to 461.3 per 100,000), followed by a sharp decline between 2016 and 2017 in both the state (172.7 to 153.2 per 100,000) and in Barnstable County (441.3 to 212.0 per 100,000) (**Figure 38**). Rates in Barnstable County for this age group have been higher than the state since 2009. Although the reasons for the recent decline are unclear, the state report suggests the increase from 2009 to 2015 was most likely linked to the injectable opioid use epidemic.

[43] Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance and Informatics Services, 2017. NOTE: Rates are based on confirmed and probable cases.

FIGURE 38: HEPATITIS C CASE RATE PER 100,000 POPULATION, AGE 15 TO 29 YEARS, 2007 TO 2017



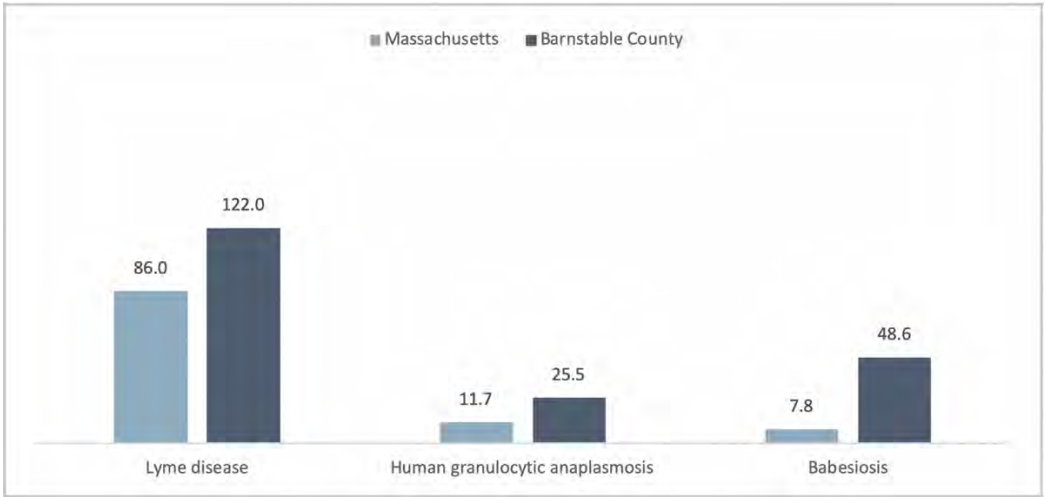
DATA SOURCE: Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance & Informatics Services, Disease Status Report

NOTE: 'Cape and Islands' includes data for Barnstable, Dukes, and Nantucket Counties; data are current as of 11/15/2016 for the 2007-2015 data and as of 2/28/19 for the 2016 and 2017 data

Tick Borne Diseases

The prevalence of tick-related diseases was mentioned as a major health concern in Barnstable County by several key informant interviewees. Incidence rates for tick borne diseases are higher for Barnstable County than the state (Lyme disease: 122.0 per 100,000 vs. 86.0 per 100,000; human granulocytic anaplasmosis: 25.5 per 100,000 vs. 11.7 per 100,000; Babesiosis: 48.6 per 100,000 vs. 7.8 per 100,000, respectively) (**Figure 39**). Of tick-borne illnesses, Lyme disease is most common, followed by Babesiosis, and human granulocytic anaplasmosis.

FIGURE 39: TICK BORNE DISEASE INCIDENCE RATES PER 100,000 POPULATION, 2014-2016



DATA SOURCE: Massachusetts Department of Public Health, 2014 (Lyme), 2015 (HGA), and 2016 (Babesiosis).

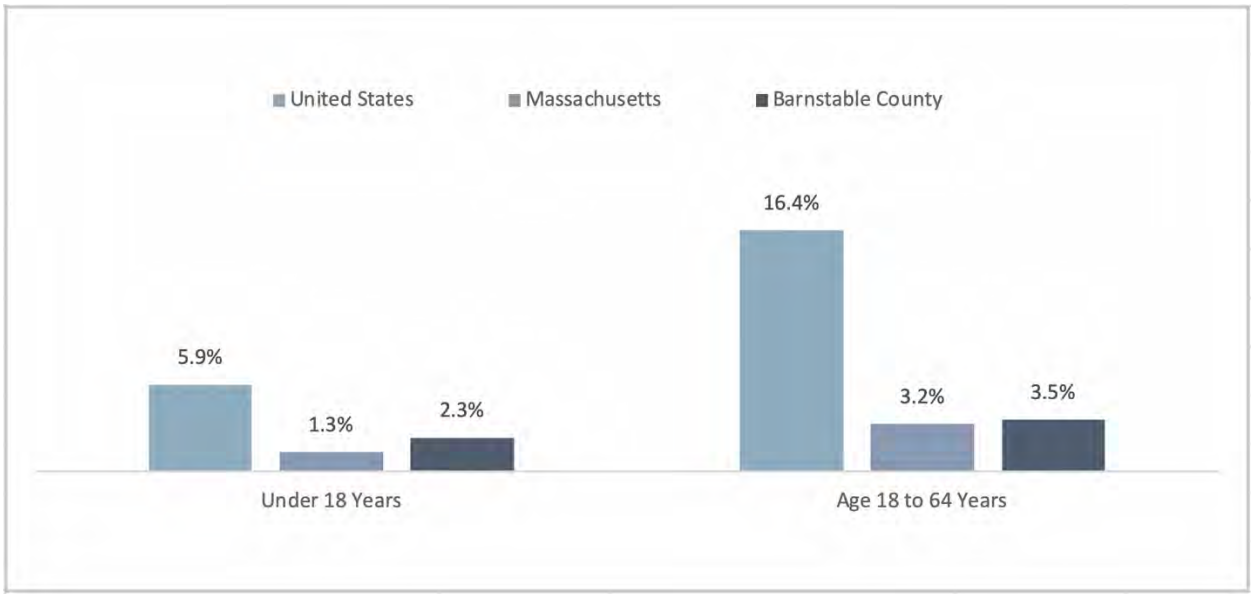
NOTE: Rates shown are based on confirmed and probably cases

Health Care Access

Insurance Status

Massachusetts and Barnstable County experience lower uninsured rates than the nation overall. For the adult population, age 18 to 64 years of age, 3.5% are uninsured in Barnstable County, compared to 3.2% in the state and 16.4% in the U.S. (**Figure 40**). Among residents under 18 years of age, the uninsured rate is slightly higher in Barnstable County than the state (3.5% vs. 3.2%, respectively). Several towns have higher uninsured rates than the county, including Dennis (7.0%), Chatham (3.9%), and Mashpee (3.5%). However, many towns have virtually fully insured populations of children.

FIGURE 40: PERCENT OF POPULATION THAT IS UNINSURED, BY AGE GROUP 2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016

The previously-described seasonal variation in employment impacts many Barnstable County residents' insurance coverage. As stakeholder dialogue participants shared, for seasonal employees, access to insurance can be cyclical with employees having insurance in summer months but not in the off-season. Thus, access to health care services may be limited and inconsistent for many families.

Health Care Resources

> *"For the most part, I feel like the access to health care is one of the strengths of this area. We hear way more positives about health care from people here than negative."* (Key Informant Interviewee)
>
> *"I think our health care system here in the county is very good. I think the care that we get from our providers excellent. Whether it be a Cape Cod Healthcare person, or an Outer Cape Healthcare Services person, or even in some cases with some of these offices, folks from Beth Israel. But I think all in all, I like to think of us as a Cape Cod Healthcare region and I think that the services that they've been providing are really good." (*Key Informant Interviewee*)*

"...I think we have great service, but I also think it [the health care system] may be at capacity as well." (Key Informant Interviewee)

Many key informant interviewees indicated that Barnstable County has abundant health care resources for those in need, including for aging adults. The increasing availability of urgent care clinics and the broad efforts of Cape Cod Healthcare itself were mentioned as essential elements of meeting the health care needs of residents. Interviewees also emphasized the importance of the health services offered by Barnstable County Human Service Department, the Barnstable County Department of Health and Environment, and by law enforcement for incarcerated individuals. Some of these services included infectious disease surveillance and referrals to substance use treatment.

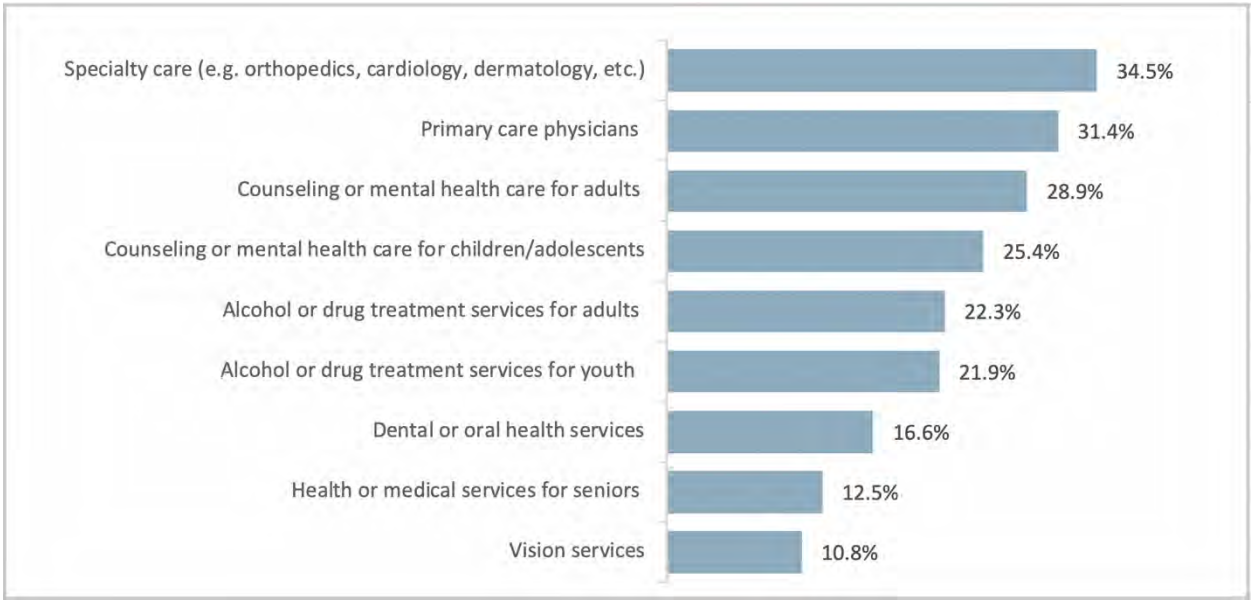
Services by community health centers were emphasized by interviewees for their extended hours, language services, and navigator and counseling staff. Stakeholder dialogue participants praised the integrated approach taken by community health centers, which allows patients to receive most of their care in one location and thereby reduce emergency department use. Likewise, the collaboration of hospitals and emergency departments with community organizations as well as first responders was seen as important to reducing hospital readmissions. Community wellness programs and school programs for truancy prevention and drug education were also cited as successful efforts.

Despite these very clear strengths and essential assets in the region related to health care, key informant interviewees and stakeholder dialogue participants consistently expressed that more health care resources and a greater capacity at the system level were needed, as described in the following sections.

Challenges to Accessing Health Care Services

Community survey respondents were asked to identify how easy or hard it was to access different types of health care services. The health care services that were most frequently rated as "very easy" or "easy" to access included outpatient services (69.7%), immunizations (66.8%), urgent care services (64.5%), emergency department services (61.9%), hospital services (56.4%), and vision services (55.9%). In contrast, the types of services that were most frequently rated 'hard' or 'very hard' to access were specialty care (34.5%), primary care physicians (31.4%), counseling or mental health for adults (28.9%) and for children/adolescents (25.4%), and alcohol or drug treatment services for adults (22.3%) and for youth (21.9%) (**Figure 41**).

FIGURE 41: HEALTH CARE SERVICES PERCEIVED AS "HARD" OR "VERY HARD" TO ACCESS

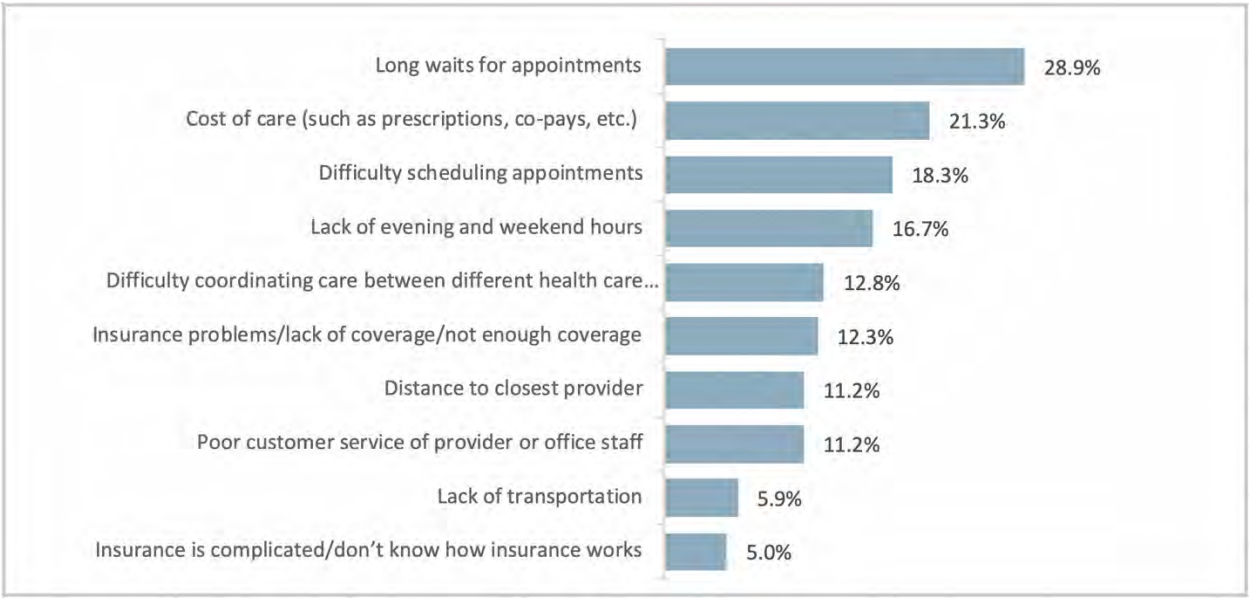


DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,568

Community survey respondents who lived on the lower or outer cape were more likely to rate specialty care and primary care as 'hard' or 'very hard' to access (44.2% and 41.9%, respectively) compared to the overall survey sample. Survey respondents with household incomes <$35,000 were more likely to rate dental or oral health services as 'hard' or 'very hard' to access (28.9%) compared to the overall survey sample.

Key informant interviewees, focus group participants, and stakeholder dialogue participants shared several barriers to accessing health care services. These included a lack of primary care providers and specialists, cost, and lack of information about services. The most frequently-identified barriers experienced by community survey respondents were 'long waits for appointments' (28.9%), 'cost of care' (21.3%), 'difficulty scheduling appointments' (18.3%), and 'lack of evening and weekend hours' 16.7%) (**Figure 42**).

FIGURE 42: COMMUNITY SURVEY RESPONDENTS' TOP BARRIERS TO HEALTH CARE IN PRIOR 12 MONTHS



DATA SOURCE: CCHC Community Health Survey, 2018
NOTES: Percentages were based on sample size of n=1,600

> *"We may not have as many positions [for health care providers] as what the area may need. There's always a waiting list."* (Key Informant Interviewee)
>
> *"Primary care is very hard to come by."* (Key Informant Interviewee)

This perspective was echoed by 45.2% of community survey respondents who identified 'access to primary care providers' as one of the top health concerns impacting the community (**Figure 22**). Slightly over one third (34.5%) of community survey respondents rated specialty care services as 'hard' or 'very hard' to access in Barnstable County and 31.4% of respondents rated primary care services similarly.

Interviewees and stakeholder dialogue participants specifically noted that dermatologists, ophthalmologists, gerontologists, and oral health providers are in limited supply. Further constraining access, according to focus group participants, is the fact that some specialists do not accept MassHealth, the state's Medicaid and Children's Health Insurance Program (CHIP).

Over one quarter (22.2%) of all community survey respondents noted 'high concern' for the issue of 'transportation to medical appointments' (**Figure 15**). These findings suggest geography and distance play an important role in the access to care. Concerns about the geographic distribution of health care services were specifically mentioned during stakeholder dialogues, with the observation that those who live on the outer and upper Cape often must travel far or even leave the Cape to receive necessary services. Key informant interviewees and stakeholder dialogue participants suggested that a Level 1 trauma center would improve care access in Barnstable County, particularly for emergencies and in the summer months when the roads are very crowded.

Health care costs were also mentioned as a barrier to accessing health care. Key informant interviewees, for example, noted that the increasing cost of insurance coverage makes it difficult for small business owners to fund insurance.

Focus group participants, who were all Spanish or Portuguese-speaking residents, reported that lack of interpreters and bilingual providers creates challenges to accessing health care. Interpretation services are especially difficult to access in specialty practices according to focus group participants.

Lack of access to information about existing services was mentioned by a few key informant interviewees, focus group participants, and stakeholder dialogue participants. Some participants attributed this access barrier to a lack of communication among organizations that can contribute to a "siloed" approach to addressing residents' needs. Participants discussed that the lack of information or incorrect information can lead to incorrect referrals and underutilization of needed services.

Closely related to the issue of increasing access to information is care coordination. Participants in stakeholder dialogues suggested that care coordination could be improved by hiring health care navigators/liaisons that understand the health care system and can advocate for patients and connect them to community-based services. Participants also recommended enhancing discharge planning to ensure that patients and families are connected to needed community resources and are able to ask questions.

Cape Cod Healthcare Strategic Implementation Plan (SIP) Overview

Priority Areas		Goals	Objectives	
1	**Physical Health Conditions**	Reduce and prevent the occurrence and severity of chronic and infectious disease in Barnstable County through collaborative approaches.	1.1	Expand hospital-based initiatives and support regional efforts to prevent, screen, detect and treat chronic and infectious diseases. (Chronic Obj 1)
			1.2	Strengthen strategic collaborations between hospitals and community health centers to improve regional health safety net of care. (Access 2)
			1.3	Support initiatives that increase access to care through provider availability, interpreter services, and insurance coverage. (Access 4)
			1.4	Support local and regional initiatives to promote health and wellness across the lifespan. (Prevention and Wellness)
2	**Behavioral Health**	CCHC will be a leading partner in providing comprehensive regional health services and community resources for individuals with mental health conditions and substance use disorders.	2.1	Expand hospital-based services and collaborations to assess and address mental health, substance use disorders and co-occurring disorders in various care settings.
			2.2	Strengthen the regional network of care for individuals with mental health and substance use disorders.
			2.3	Support efforts to build a recovery-friendly community.
3	**Transportation**	Regional transportation systems support increased access to health care services in Barnstable County.	3.1	Increase transportation options to primary care, specialty care, urgent care, hospital system, and allied health services in our region.
			3.2	Increase transportation options to access services in the community that support health (e.g., food pantries, open spaces).
4	**Housing**	Vulnerable populations in our community show improved health indicators through access to stable and quality housing.	4.1	Develop partnerships with regional organizations that address issues of housing and homelessness.
			4.2	Improve regional capacity to support transitions between health care settings and home.
5	**Workforce Development**	Our community is served by a strong, adequate health care workforce.	5.1	Foster existing and new partnerships with educational institutions and academic medical centers.
			5.2	Invest in recruitment and retention of health care providers in the community to meet growth demands for health care services.

Priority 1: Physical Health Conditions

Goal 1: **Reduce and prevent the occurrence and severity of chronic and infectious disease in Barnstable County through collaborative approaches.**

Objective 1.1: **Expand hospital-based initiatives and support regional efforts to prevent, screen, detect and treat chronic and infectious diseases. (Chronic Obj 1)**

Monitoring/Evaluation Approach

- Evaluation of cancer screening results and activities
- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- Specialty Network for the Uninsured
- Federally-Qualified Health Centers
- Cape Wellness Collaborative
- Councils on Aging across Cape Cod
- YMCA Weny Diabetes Education Center
- American Diabetes Association
- American Cancer Society
- AIDS Support Group of Cape Cod
- Health Imperatives Cape Cod
- MA Department of Public Health
- Health Resources and Services Administration (HRSA) HIV/AIDS Bureau
- Cape Cod Cooperative Extension
- UMASS Laboratory of Medical Zoology
- Local health departments

Objective 1.2: **Strengthen strategic collaborations between hospitals and community health centers to improve regional health safety net of care. (Access 2)**

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees
- Monitoring of ACO social determinants of health projects

Potential Partners

- Community Health Center of Cape Cod
- Duffy Health Center
- Harbor Community Health Center
- Outer Cape Health Services
- Island Health Care

Objective 1.3: **Support initiatives that increase access to care through provider availability, interpreter services, and insurance coverage. (Access 4)**

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- Community based physician offices
- Federally Qualified Health Centers

- The Specialty Network for the Uninsured
- Serving the Health Insurance Needs of Everyone (SHINE) program at Barnstable County Human Services
- Cape Cod Hospital and Falmouth Hospital financial counselors

Objective 1.4: Support local and regional initiatives to promote health and wellness across the lifespan. (Prevention and Wellness)

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- Health Imperatives Cape Cod
- National Park Services- Cape Cod National Seashore
- Honoring Choices Massachusetts

Priority 2: Behavioral Health

Goal 2: **CCHC will be a leading partner in providing comprehensive regional health services and community resources for individuals with mental health conditions and substance use disorders.**

Objective 2.1: **Expand hospital-based services and collaborations to assess and address mental health, substance use disorders and co-occurring disorders in various care settings.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- National Alliance for Mental Illness (NAMI) Cape Cod
- Various community based program providing adolescent, adult and geriatric psychiatric care
- Various peer-based community programs
- Gosnold on Cape Cod
- Federally Qualified Health Centers
- Various treatment facilities in MA
- Community based recovery support programs
- Cape & Islands Police and Fire Departments

Objective 2.2: **Strengthen the regional network of care for individuals with mental health and substance use disorders.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees
- Zero suicide program outcome reports
- Event evaluation forms from trainings and the Behavioral Health Coalition Summit event

Potential Partners

- Behavioral Health Provider Coalition of Cape Cod & the Islands
- Barnstable County Human Services Department
- MA Department of Mental Health (DMH)
- MA Department of Public Health (DPH)
- Samaritans on Cape Cod and the Islands
- Duffy Health Center
- Bay Cove
- Veterans Administration

Objective 2.3: **Support efforts to build a recovery-friendly community.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- Barnstable County Regional Substance Use Council
- WellStrong
- Gosnold, Inc.
- PIER Recovery Center – Gandara Center
- Duffy Health Center
- Cape Cod Children's Place, Vinfen

Priority 3: Transportation

Goal 3: **Regional transportation systems support increased access to health care services in Barnstable County.**
(Cross-cutting: elderly, lower income, mom's with kids)

Objective 3.1: **Increase transportation options to primary care, specialty care, urgent care, the hospital system, and allied health services in our region.**

Monitoring/Evaluation Approach

- Transportation utilization data from partner organizations
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees
- Calculation of employee hours committed to participation in partnership engagement

Potential Partners

- Cape Cod Regional Transportation Authority
- Council's on Aging
- Federally Qualified Health Centers
- Cape Cod Commission
- Spaulding Rehabilitation Hospital Cape Cod

Objective 3.2: **Increase transportation options to access services in the community that support health (e.g., food pantries, open spaces).**

Monitoring/Evaluation Approach

- Annual Community Benefits reporting for hospital programs
- Annual Community Benefits grant outcomes and summary reports by grantees
- Assess the impact of environmental changes, emerging factors

Potential Partners

- Cape Cod Regional Transportation Authority
- Town recreational departments
- National Park Service
- Food pantries across region
- CCHC Retail Pharmacies
- Cape Cod Commission
- Chambers of Commerce

Priority 4: Housing

Goal 4: **Vulnerable populations in our community show improved health indicators through access to stable and quality housing.** *(Cross-cutting: Aging, HC Access, primary/secondary/tertiary prevention)*

Objective 4.1: **Develop partnerships with regional organizations that address issues of housing and homelessness.**

Monitoring/Evaluation Approach

- Annual AG self-assessment
- Calculation of employee hours committed to participation in partnership engagement
- Assess the impact of environmental changes, emerging factors

Potential Partners

- Housing Assistance Corporation on Cape Cod
- Community Development Partnership
- Town Housing Authorities
- Barnstable County Regional Network on Homelessness

Objective 4.2: **Improve regional capacity to support transitions between health care settings and home.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for housing-related hospital programs
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees
- Calculation of employee hours committed to participation in partnership engagement
- Assessment of the impact of environmental changes, emerging factors

Potential Partners

- Cape Cod Chamber of Commerce
- Cape Cod Commission
- Cape Cod Health News
- Cape Cod Cooperative Extension
- Visiting Nurse Association of Cape Cod
- Barnstable County Department of Health and Environment
- Cape Cod Hoarding Task Force
- Housing Assistance Corporation on Cape Cod
- Community Development Partnership
- Town Housing Authorities

Priority 5: Workforce Development

Goal 5: **Our community is served by a strong, adequate health care workforce.**
(cross-cutting: Aging, HC Access, primary/secondary/tertiary prevention)

Objective 5.1: **Foster existing and new partnerships with educational institutions and academic medical centers.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for workforce development hospital programs
- Calculation of employee hours committed to participation in partnership engagement
- Annual Community Benefits Grant Outcomes and Summary Reports by grantees

Potential Partners

- University of Massachusetts
- Cape Cod Community College
- Bridgewater State
- Community Colleges
- Local vocational and technical schools
- Local public school systems
- Riverview School

Objective 5.2: **Invest in recruitment and retention of health care providers in the community to meet growth demands for health care services.**

Monitoring/Evaluation Approach

- Annual community benefits reporting for physician recruitment, loan forgiveness, and tuition reimbursement activities
- Annual provider recruitment goals and objectives

Potential Partners

- Chambers of Commerce
- Cape Cod Community College
- Cape and Islands Workforce Investment Board
- Federally Qualified Health Centers

APPENDIX A: List of Participating Organizations

Organization	Type of Organization	Populations Served/Represented by Organization				
		Seniors	Children	Low-Income	Minority	Medically Underserved*
AIDS Support Group of Cape Cod and the Islands	Health	•		•	•	•
Alzheimer's Family Support Center	Human Services	•		•	•	•
Barnstable Council on Aging	Municipal	•		•	•	•
Barnstable County Department of Health and Environment	County Public Health	•	•	•	•	•
Barnstable County Department of Health and Environment Public Nurse	County Public Health	•	•	•	•	•
Barnstable County Department of Human Services	Human Services	•	•	•	•	•
Bourne Council on Aging	Municipal	•		•	•	•
Bourne Human Services Committee	Municipal	•	•	•	•	•
Cape and Islands Emergency Medical Services System	Health	•	•	•	•	•
Cape Abilities	Human Services	•	•	•	•	•
Cape Cod Children's Place	Human Services		•	•	•	•
Cape Cod Healthcare Accountable Care Organization	Health	•	•	•	•	•
Cape Organization for the Rights of the Disabled	Human Services	•	•	•	•	•
Community Action Committee of Cape Cod and Islands, Inc.	Community Action Agency	•	•	•	•	•
Council of Churches	Faith Based	•	•	•	•	•
Duffy Health Center	Federally Qualified Health Center	•	•	•	•	•
Elder Services of Cape Cod and the Islands	Area Agency on Aging (AAA)	•		•	•	•

Organization	Type of Organization	Populations Served/Represented by Organization				
		Seniors	Children	Low-Income	Minority	Medically Underserved*
Falmouth Service Center	Human Services	•	•	•	•	•
Health Imperatives Cape Cod	Health	•	•	•	•	•
Healthy Aging Project Cape Cod	Regional coalition	•		•	•	•
Mashpee Council on Aging	Municipal	•		•	•	•
Mashpee Human Services	Municipal	•	•	•	•	•
Mashpee Wampanoag Tribe	Tribal	•	•	•	•	•
Orleans Council on Aging	Municipal	•		•	•	•
Outer Cape Health Services	Federally Qualified Health Center	•	•	•	•	•
Relief Home Health Services, Inc.	Health	•	•	•	•	•
Spaulding Rehabilitation Hospital Cape Cod	Health	•	•	•	•	•
The Family Pantry of Cape Cod	Human Services	•	•	•	•	•
Town of Yarmouth Health Department	Local Health Agent/Municipal	•	•	•	•	•
Visiting Nurse Association of Cape Cod	Health	•	•	•	•	•
Town of Yarmouth Senior Services	Municipal	•		•	•	•
YMCA Cape Cod	Human Services	•	•	•	•	•

*Per IRS Definition: Medically underserved populations include populations experiencing health disparities or that are at risk of not receiving adequate medical care because of being uninsured or underinsured, due to geographic, language, financial, or other barriers, or those living within a hospital facility's service area but not receiving adequate medical care from the facility because of cost, transportation difficulties, stigma, or other barriers.

APPENDIX B: Timeline for CHNA Activities

Activity	Timeframe
Collected and analyzed local, state, and national health indicator data	October 2018 – January 2019
Interviewed public health experts and organizations serving low-income, vulnerable, disadvantaged, and medically underserved residents (Key Informant Interviews)	October 31, 2018 –January 4, 2019
Launched/distributed/conducted Community Health Survey	November 12, 2018 – December 31, 2018
Conducted Community Focus Groups	December 2018 – January 2019
Conducted Cape-wide Health and Human Services Provider Forums (Stakeholder Dialogues)	October 2019 – November 2019
Analyzed data and community input	January – February 2019
Cataloged health care facilities and resources within the community	February 2019
Developed health priorities and implementation strategies	February 8, 2019 – March 25, 2019
CCHC Board of Trustees approved report findings and implementation strategies	June 11, 2019 – June 30, 2019
Finalized publication of CHNA report and implementation plan	September 1, 2019
Publicly distributed CHNA report and implementation plan	September 2019

APPENDIX C: Data Sources and Methodologies

Several strategies were employed to engage and gain perspectives from different population groups during data collection. CCHC considered gender, sexual orientation, age, disability status, socioeconomic status, and geographic location in addition to race and ethnicity when soliciting participation in focus groups and the community survey. Deliberate outreach to members of medically underserved and low-income and minority populations was conducted, and participants were represented in the stakeholder dialogues and key informant interviews. Organizations were chosen to represent those that serve a variety of residents and addressing various needs, including public health, housing and homelessness, public safety, and other human services. A complete list of participating organizations is provided in **Appendix A**.

The specific data sources and methodologies utilized in the CHNA process include:

Secondary Data Review. A comprehensive review of existing data drawn from national, state, and local sources was conducted. Data sources included, but were not limited to, the U.S. Census Bureau, the Centers for Disease Control and Prevention, the Massachusetts Department of Public Health, among others. Types of data included demographics, vital statistics, public health surveillance, as well as self-report of select health behaviors from large, population-based surveys such as the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS). The selection of secondary data points was generally based on the prior CHNAs to allow for examination of trends over time. However, additional secondary data sources were explored when major themes or issues arose from qualitative data collection. When available, data were stratified by age group or by income/poverty level to identify areas of disparity. A complete list of secondary data sources is provided in **Appendix D**.

Community Stakeholder Dialogues. Two "stakeholder dialogues" were held with staff from a broad array of agencies and organizations actively working in the health and human services sectors of Barnstable County. These facilitated small- and large-group discussions focused on health in the community and services in the community. A total of approximately 70 individuals attended these sessions.

Key Informant Interviews. Key informant interviews were conducted via phone with 25 community leaders from organizations across all of Barnstable County, representing health centers, public safety organizations, housing organizations, and other human service groups. Key informants were identified for participation based on their in-depth knowledge of the health needs and resources of the region. Discussions focused on health strengths and needs in the community and opportunities and challenges to addressing community needs. They were also asked to describe organizational partnerships within Barnstable County, perceptions of community services, and perceptions of CCHC.

Focus Groups. Two focus groups, one conducted in Spanish and one in Portuguese, were held with residents to gather information about the community, health challenges and needs, existing services, and suggestions for the future. One focus group of Portuguese-speaking residents was conducted at IPR Cape Cod Church and involved 14 participants. The other involved six Spanish-speaking participants and was held at the Immigration Resource Center at Community Action Committee of Cape Cod.

Community Survey. A community survey was made available to all residents of Barnstable County. Respondents were able to access the survey either on-line (via Survey Monkey) or as a hard copy, and both formats were available in English, Spanish, and Portuguese. The survey included questions that focused on residents' perceptions of their own health, the health of their community, health care utilization, and social needs in the community. The survey was completed by 2,011 Barnstable County residents. The demographic characteristics of the survey respondents are detailed in **Appendix E**.

As with all data collection efforts, there are several limitations that should be acknowledged. A number of secondary data sources were drawn upon in creating this report. Although all are considered highly credible, each source may use different methods and assumptions when tabulating data. Due to the collection of data from multiple sources, the data presented in this report may cover multiple time periods and indicators may not be directly comparable to one another. Additionally, secondary data pertaining to health indicators are obtained from the MA DPH via its mandated health reporting programs. However, for many indicators MA DPH data are simply not available for recent years or not available at the local level.

For the Community Health Survey convenience sampling was used, and data were collected from those who were readily available and willing to participate. Thus, findings may not be generalizable to the larger population or to specific sub-populations of Barnstable County. Additionally, the survey relies on self-reported information; respondents may have over- or under-reported perceptions based on biases or misunderstanding of the question asked. Furthermore, this survey may be prone to selection bias – individuals who had more positive or negative experiences or perceptions may have been more likely than other individuals to complete the survey.

Finally, key informant interviews, stakeholder dialogues, and focus groups were conducted for this study. While these provide valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for interviews, dialogues, and focus groups was conducted by the CCHC Community Benefits Department and collaborating agencies and organizations. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. It is also important to note that these data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive.

APPENDIX D: List of Secondary Data Sources

U.S. Census Bureau, American Community Survey 5-Year Estimates, 2011-2015
U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016
U.S. Census Bureau, American Community Survey 5-Year Estimates, 2007-2011 and 2012-2016
Massachusetts Department of Elementary and Secondary Education, School/District Profiles, 2017
U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2017 and 2018
Feeding America, Map the Meal Gap, Food Insecurity Estimates at the County Level, 2016
U.S. Department of Agriculture Food Environment Atlas, 2015
Business Analyst, Delorme map data, ESRI, & U.S. Census Tigerline Files, as reported by County Health Rankings, 2016; Centers for Disease Control and Prevention, Diabetes Interactive Atlas, as reported by County Health Rankings, 2014
Cape and Islands Regional Network on Homelessness, Annual Point in Time Count for Barnstable, Dukes, and Nantucket Counties, 2016, 2017, 2018
Health Resources & Services Administration, Health Center Program Grantee Data, Uniform Data System, 2017
Massachusetts Behavioral Risk Factor Surveillance System, 2016; as cited by County Health Rankings
Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2015
Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016
Center for Disease Control and Prevention, 2015
Fiscal Year 2017 Massachusetts Health Data Consortium Inpatient Discharge Rate; Based on Cape Cod hospital discharge data and using state weights for age adjustment
FY 2015 Massachusetts Health Data Consortium
Massachusetts Cancer Registry, 5-year Profile 2011-2015
Massachusetts Department of Public Health, Bureau of Environmental Health, 2016-2017
Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, as reported by County Health Rankings, 2016
Youth Health Survey, Massachusetts Department of Health (2017), Monomoy Regional High School (2016), and Nauset Regional High School (2017); NOTE: Rates shown reflect students in grades 9-12
2016 Depression Diagnosis Rates by MSA, Blue Cross Blue Shield Foundation Report: Major Depression – The Impact on Overall Health, 2018
Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Office of Statistics and Evaluation, Fiscal Year 2018
Federal Bureau of Investigation, Criminal Justice Information Services, Uniform Crime Reporting, Offenses Known to Law Enforcement, by State and by City, 2017
Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance and Informatics Services, 2017
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention as reported by County Health Rankings, 2015
Massachusetts Department of Public Health, 2014 (Lyme), 2015 (HGA), and 2016 (Babesiosis)
National Provider Identification file, Centers for Medicare and Medicaid Services, Area Health Resource File, as reported by County Health Rankings, 2016

University of Massachusetts Donahue Institute. (2015). Long Term Population Projections for Massachusetts Regions and Municipalities. Retrieved from http://pep.donahue-institute.org
Massachusetts Attorney General Guidelines for Non-Profit Hospitals: https://www.mass.gov/files/documents/2016/08/qy/hospital-guidelines.pdf
A comprehensive description of the Massachusetts Department of Public Health social determinant of health priorities is available on their website: http://www.mass.gov/files/documents/2017/01/tr/guidelines-health-priority.pdf
Final Internal Revenue Service Regulations-(IRS Notice 2011-52 as outlined in section 501(r) (3) of the Internal Revenue Code): https://www.federalregister.gov/documents/2014/12/31/2014-30525/additional-requirements-for-charitable-hospitals-community-health-needs-assessments-for-charitable

APPENDIX E: Community Survey Respondent Characteristics

A total of 2,011 Barnstable County residents completed the survey. Of this total, 1,979 respondents completed the survey on-line (98.4%) and 32 respondents completed hard copy surveys (1.6%). Additionally, the survey was distributed in three languages: 1,971 respondents completed the survey in English (98.0%), 31 in Portuguese (1.5%), and 9 in Spanish (0.4%).

Demographic Characteristics of Survey Respondents

	Count	Percent
Town of Residence (N=2,011)		
Barnstable	399	19.8%
Bourne	72	3.6%
Brewster	105	5.2%
Chatham	70	3.5%
Dennis	132	6.6%
Eastham	48	2.4%
Falmouth	253	12.6%
Harwich	138	6.9%
Mashpee	124	6.2%
Orleans	51	2.5%
Provincetown	53	2.6%
Sandwich	144	7.2%
Truro	25	1.2%
Wellfleet	23	1.1%
Yarmouth	374	18.6%
Age (N=1,530)		
Under 18 years old	0	0.0%
18-24 years old	14	0.9%
25-34 years old	75	4.9%
35-44 years old	136	8.9%
45-54 years old	184	12.0%
55-64 years old	321	21.0%
65-74 years old	477	31.2%
75-84 years old	253	16.5%
85+ years old	50	3.3%
Prefer not to say	20	1.3%
Gender (N=1,525)		
Male	358	23.5%
Female	1,129	74.0%
Non-binary	4	0.3%
Prefer not to say	34	2.2%
Race/Ethnicity (N=1,502)		
American Indian or Alaskan Native, non-Hispanic	3	0.2%
Asian, non-Hispanic	3	0.2%

Black or African American, non-Hispanic	4	0.3%
Hispanic/Latino(a), any race	28	1.8%
Middle Eastern or North African, non-Hispanic	1	0.1%
Native Hawaiian or Other Pacific Islander, non-Hispanic	1	0.1%
White, non-Hispanic	1,385	91.1%
Multiple races	21	1.4%
Some other race, ethnicity or origin	19	1.3%
Prefer not to say	55	3.6%
Educational Attainment (N=1,529)		
Less than high school	7	0.5%
High school graduate or GED	56	3.7%
Vocational or trade school	27	1.8%
Some college	205	13.4%
Associate or technical degree/certification	159	10.4%
College graduate	489	32.0%
Graduate or professional degree	568	37.1%
Prefer not to say	18	1.2%
Annual Household Income (N=1,524)		
Less than $25,000	66	4.3%
$25,000 to $34,999	117	7.7%
$35,000 to $49,999	124	8.1%
$50,000 to $74,999	236	15.5%
$75,000 to $99,999	223	14.6%
$100,000 to $ 150,999	253	16.6%
$151,000 to $ 199,999	102	6.7%
$200,000 or more	88	5.8%
I don’t know or don’t want to say	315	20.7%
Language Spoken Most Often at Home (N=1,526)		
English	1,483	97.2%
Portuguese	28	1.8%
Spanish	8	0.5%
Mandarin	0	0.0%
French	0	0.0%
Haitian Creole	0	0.0%
Other	7	0.5%
Current Living Situation (N=1,999)		
Live in an apartment/condo/house that I own	1,654	82.7%
Live in an apartment/condo/house that I rent	210	10.5%
Live in a seasonal rental	5	0.3%
Live in a family member’s home	109	5.5%
Live in a shelter	1	0.1%
Homeless	1	0.1%
Other	19	1.0%

Current Employment Status* (N=2,005)		
Employed for wages year-round	818	40.8%
Self-employed year-round	140	7.0%
Seasonally employed (not year-round)	53	2.6%
Unemployed	36	1.8%
Homemaker/Stay-at-home parent	29	1.4%
Student	26	1.3%
Caregiver	32	1.6%
Retired	911	45.4%
Unable to work	33	1.6%
Prefer not to answer	4	0.2%
Other	66	3.3%
Caregiver Status of Survey Respondents**		
Current parent/legal guardian for children under 18 (N=2,002)		
Yes	277	13.8%
No	1,725	86.2%
Caregiver for person with physical/cognitive disability (N=1,994)		
Yes	269	13.5%
No	1,725	86.5%
Caregiver for person over 50 (N=2,000)		
Yes	326	16.3%
No	1,674	83.7%

*Respondents were allowed to select more than one response; percentages may not sum up to 100%. ** Caregiver categories are not mutually exclusive

APPPENDIX F: Inventory of available resources addressing significant health needs

Priority 1: Physical Health

Cape Cod Healthcare (CCHC) Services:
Bourne Health Center
Cape Cod Hospital
Cape Cod Hospital OB/GYN Clinic
Cape Cod Hospital Pain Center
CCHC Diabetes Education Services
CCHC Family Birthplace
CCHC Financial Counseling
CCHC Heart and Vascular Institute
CCHC Infectious Disease Clinical Services
CCHC Laboratory Services
CCHC Neurosciences and Pain Services
CCHC Orthopedic Services
CCHC Pharmacies in Falmouth, Harwich, Hyannis and Sandwich
CCHC Regional Cancer Network
CCHC Rehabilitation Services
CCHC Urgent Care Centers in Falmouth, Harwich, Hyannis and Sandwich
CCHC Wound Care Center
Clark Cancer Center
Davenport-Mugar Cancer Center
Emerald Physicians
Falmouth Hospital
Falmouth Hospital Imaging at Community Health Center of Cape Cod
Falmouth Hospital Outpatient Services
Falmouth Hospital Outpatient Surgery Center
Fontaine Medical Center
Heritage at Falmouth
JML Care Center
Medical Affiliates of Cape Cod (MACC)
Oppenheim Medical Building
Primary Care Internists
Rogers Outpatient Center
Stoneman Outpatient Center
Visiting Nurse Association of Cape Cod
Wilkens Medical Complex

Federally Qualified Health Centers:
Community Health Center of Cape Cod
Duffy Health Center
Harbor Community Health Center- Hyannis
Outer Cape Health Services

Community-Based Services:
AIDS Support Group of Cape Cod
Alzheimer's Family Support Center of Cape Cod
American Cancer Society
American Heart Association
American Lung Association
Barnstable County Department of Health and Environment
Barnstable County Department of Human Services
Barnstable County Public Health Nurse
Cape and Islands Emergency Medical Services System, Inc.
Cape Abilities
Cape and Islands Veterans Outreach Center
Cape Cod Cooperative Extension
Cape Cod Council of Churches
Cape Cod Hunger Network
Cape Cod Medical Reserve Corps
Cape Cod Regional Tobacco Control Program
Cape Cod WIC
Cape Disability Network
Cape Organization for the Rights of the Disabled
Cape Wellness Collaborative
COAST (Council's on Aging Serving Together)
Community Action Committee of Cape Cod and Islands
Elder Services of Cape Cod and the Islands
Falmouth Human Services
Falmouth Service Center
Glenna Kohl Fund for Hope
Health Imperatives Cape Cod
Healthy Aging Cape Cod
Helping Our Women
Independence House
Lower Cape Outreach Council
Lyme Awareness of Cape Cod
MA Department of Public Health
MA Department of Veterans Services
Mashpee Wampanoag Health Service Unit–Indian Health Services
National Multiple Sclerosis Society
Outer Cape WIC
Parish Nurse Ministries of Cape Cod

Parkinson's Support Network of Cape Cod
Relief Home Health Services
Serving the Health Needs of Everyone (SHINE)
Sight Loss Services
Spaulding Rehabilitation Hospital Cape Cod
Specialty Network for the Uninsured
Team Maureen
The Family Pantry
Town of Sandwich Public Health Nurse
U.S. Department of Veterans Affairs Medical Center – Hyannis
WE CAN
YMCA Cape Cod
YMCA Diabetes Resource Center

Priority 2: Behavioral Health

Cape Cod Healthcare (CCHC) Services:
CCHC Centers for Behavioral Health Outpatient Counseling and Therapy
CCHC Inpatient and Partial Hospital Psychiatric Services
Cape Cod Hospital Emergency Department
Falmouth Hospital Emergency Department
Community-Based Services:
AIDS Support Group of Cape Cod
Al-Anon/Alateen
Barnstable County Regional Substance Use Council
Baybridge Clubhouse
Baycove Cape & Islands Crisis Intervention Team
Behavioral Health Innovators
Behavioral Health Provider Coalition of Cape Cod & the Islands
Cape and Islands Suicide Prevention Coalition
Cape Behavioral Health Center
Cape Cod Family Resource Center
Cape Cod Hoarding Task Force
Child and Family Services
Children's Cove
Community Health Center of Cape Cod
Cove Clubhouse
Dance in the Rain Peer Center
Duffy Health Center
Duffy Health Center – Moms Do Care Program
Falmouth Prevention Partnership
Family Continuity
Fellowship Health Services
Gandara Center
Gosnold, Inc.
Habit OPCO Yarmouth Treatment Center
Harbor Community Health Center
High Point Treatment Center
Justice Resource Institute
Learn to Cope
MA Department of Children and Families
MA Department of Mental Health
MA Department of Public Health (MADPH)
MADPH Bureau of Substance Addiction Services
Massachusetts Organization for Addiction Recovery
Massachusetts Substance Abuse Info and Education Helpline
Cape & Islands Maternal Depression Task Force
Nar-Anon
National Alliance on Mental Illness (NAMI) Cape Cod and the Islands
Nauset Together We Can
New England Region Narcotics Anonymous
Outer Cape Health Services
Parent Supporting Parents
PIER Recovery Center
Recovering Champions
Recovering Youth Coalition
Community-Based Services continued:
Recovery Without Walls
South Bay Community Services
Stanley Street Treatment and Resources (SSTAR)
Cape Cod Intergroup of Alcoholics Anonymous
The Open Doorway of Cape Cod
Vinfen
WellStrong

Priority 3: Transportation

Community-Based Services:
Bay to Sound Neighbors
Cape Cod Ambulance Service
Cape Cod Collaborative
Cape Cod Commission
Cape Cod Regional Transit Authority
Cape Cod Wheelchair Transit

Cape Organization for Rights of the Disabled CORD)
Councils on Aging Serving Together (COAST)
Elder Services of Cape Cod and the Islands
Helping Our Women
Massachusetts Department of Transportation
Nauset Neighbors
Neighborhood Falmouth

Priority 4: Housing

Community-Based Services:
Barnstable County Department of Human Services
Barnstable County HOME Investment Partnership Program
Barnstable Housing Authority
Bourne Housing Authority
Brewster Housing Authority
Cape and Islands Regional Network to Address Homelessness
Cape Cod Commission
Cape Cod Council of Churches
Cape Cod Village
Cape Organization for Rights of the Disabled (CORD)
Catholic Charities – St. Joseph's House Shelter
Champ Homes
Chatham Housing Authority
Community Action Committee of Cape Cod and the Islands
Community Development Partnership
Dennis Housing Authority
Eastham Housing Authority
Falmouth Housing Authority
Falmouth Housing Corporation
Falmouth Housing Trust
F.O.R.W.A.R.D Cape Cod
Habitat for Humanity
Harwich Ecumenical Council for Housing
Harwich Housing Authority
Homeless Not Hopeless
Homeless Prevention Council
Housing Assistance Corporation
LIFE Cape Cod
Low Income Home Energy Assistance Program
Lower Cape Outreach Council
MA Department of Housing and Community Development
Mashpee Housing Authority
Mass Housing Partnership
Massachusetts Home Modification Loan Program
Orleans Housing Authority
Provincetown Housing Authority
Salvation Army
Sandwich Housing Authority
Truro Housing Authority
Wellfleet Housing Authority
Yarmouth Housing Authority

Priority 5: Employment

Community-Based Services:
ARC of Cape Cod
Cape Abilities
Cape Organization for Rights of the Disabled
Community Connections
Department of Transitional Assistance – Employment Services Program
Elder Services of Cape Cod and the Islands
Job Training and Employment Corporation (JTEC)
Mass Division of Unemployment Assistance
MassHire Cape and Islands Career Center
MassHire Cape and Islands Workforce Board
Cape Cod Technology Council
Cape Cod Community College
Cape Cod Chamber of Commerce
Cape Cod Young Professionals (CCYP)

APPENDIX G: CAPE COD HEALTHCARE CHNA AND SIP WORK GROUP

- Theresa Ahern, CCHC Senior Vice President Strategy and Government Affairs
- Lisa Guyon, CCHC Director of Community Benefits
- Tina Shaw, CCHC Director Strategy and Government Affairs
- Brenda Foley, CCHC Senior Manager Strategic Services
- Chaitanya Joshi, CCHC Manager Cost Accounting
- Susan Foley, Project Manager Strategy and Government Affairs
- Beth Albert, Barnstable County Human Services Director
- Vaira Harik, Barnstable County Human Services Deputy Director/Senior Project Manager
- Susan Harrington, CCHC ACO Clinical Director
- Elizabeth Lynch, CCHC Operations Manager Centers for Behavioral Health -- Outpatient
- Valerie Al-Hachem, CCHC Director and Grants Administrator Infectious Disease Clinical Services

The findings shared in this CHNA were used to develop the Strategic Implementation Plan (SIP) to guide CCHC's work to address the priority community needs in the coming years. This plan will build on the two prior SIPs and is accessible at **https://www.capecodhealth.org/about/caring-for-our-community/.**

CAPE COD HEALTHCAR

Cape Cod Healthcare • 88 Lewis Bay Road • Hyannis, Massachusetts 02601

APPENDIX 6

AFFILIATED PARTIES

Massachusetts Department of Public Health
Determination of Need
Affiliated Parties

Version: DRAFT 3-15-17

DRAFT

Application Date: 03/01/2022 Application Number: CCHC-22021416-HE

Applicant Information

Applicant Name: Cape Cod Healthcare, Inc.

Contact Person: Michael Bachstein Title: Vice President of Facilities

Phone: 5088625225 Ext: E-mail: MBachstein@capecodhealth.org

Affiliated Parties

1.9 **Affiliated Parties:**
List all officers, members of the board of directors, trustees, stockholders, partners, and other Persons who have an equity or otherwise controlling interest in the application.

Add/ Del Rows	Name (Last)	Name (First)	Mailing Address	City	State	Affiliation	Position with affiliated entity (or with Applicant)	Stock, shares, or partnership	Percent Equity (numbers only)	Convictions or violations	List other health care facilities affiliated with	Business relationship with Applicant
+ -	Lauf	MIchael	2 Meadow Spring Drive	E. Sandwich	MA	Cape Cod Healthcare, Inc.	President and CEO, CCHC CEO, Cape Cod Hospital			No	Cape Cod Hospital	Yes
+ -	Johnston	Alastari Bruce	2141 Oyster Harbors	Osterville	MA	Cape Cod Healthcare, Inc.	Chairman			No		No
+ -	Ayer	Ramani	22 Horseshoe Lane, North	South Orleans	MA	Cape Cod Healthcare, Inc.	Vice Chair and Treasurer			No		No
+ -	Talerman	Robert A.	34 Wild Goose Way	Centerville	MA	Cape Cod Healthcare, Inc.	Clerk			No		No
+ -	Jones	Michael G.	65 Shady Lane	Hatchville	MA	Cape Cod Healthcare, Inc.	Co-Clerk			No		Yes
+ -	Calianos, M.D.	Theodore	151 Whitmar Road	Cotuit	MA	Cape Cod Healthcare, Inc.	Trustee			No	Cape Cod Surgery Center	Yes
+ -	Capodilupo	Lawrence	77 Geranium Drive	Chatham	MA	Cape Cod Healthcare, Inc.	Trustee			No		No
+ -	Devereux	Robin	15 Peach Pipe Road	Falmouth	MA	Cape Cod Healthcare, Inc.	Trustee			No		No
+ -	HInes, M.D.	Cynthia A.	54 East Harbor Drive	East Falmouth	MA	Cape Cod Healthcare, Inc.	Trustee			No	Falmouth Hospital	Yes
+ -	Kennedy	Sharon	40 Fort Hill Road	East Sandwich	MA	Cape Cod Healthcare, Inc.	Trustee			No		No
+ -	Mulchay, Jr.	Edward James	2037 Oyster Harbors	Osterville	MA	Cape Cod Healthcare, Inc.	Trustee			No		No
+ -	Rudman, M.D.	Nathan T.	48 Waterman Farm Road	Centerville	MA	Cape Cod Healthcare, Inc.	Trustee			No	Cape Cod Hospital	Yes
+ -	Sullivan, M.D.	Molly	72 Scudder Bay Circle	Centerville	MA	Cape Cod Healthcare, Inc.	Trustee			No	Cape Cod Hospital	Yes
+ -	Vilsaint, M.D.	Kevin	103 Pine Tree Drive	Centerville	MA	Cape Cod Healthcare, Inc.	Trustee			No	Cape Cod Hospital	Yes

Document Ready for Filing

When document is complete click on "document is ready to file". This will lock in the responses and date and time stamp the form. To make changes to the document un-check the "document is ready to file" box. Edit document then lock file and submit Keep a copy for your records. Click on the "Save" button at the bottom of the page.

To submit the application electronically, click on the"E-mail submission to Determination of Need" button.

This document is ready to file: ☐ Date/time Stamp:

E-mail submission to Determination of Need

APPENDIX 7

CHANGE IN SERVICE

Massachusetts Department of Public Health
Determination of Need
Change in Service

Version: DRAFT 6-14-17

DRAFT

Application Number: CCHC-220214160-HE Original Application Date: 03/01/2022

Applicant Information

Applicant Name: Cape Cod Healthcare, Inc.

Contact Person: Michael Bachstein Title: Vice President of Facilities

Phone: 5088625225 Ext: E-mail: MBachstein@capecodhealth.org

Facility: Complete the tables below for each facility listed in the Application Form

1 Facility Name: Cape Cod Hospital CMS Number: 220135 Facility type: Hospital

Change in Service

2.2 Complete the chart below with existing and planned service changes. Add additional services with in each grouping if applicable.

Add/Del Rows		Licensed Beds	Operating Beds	Change in Number of Beds (+/-)		Number of Beds After Project Completion (calculated)		Patient Days	Patient Days	Occupancy rate for Operating Beds		Average Length of Stay	Number of Discharges	Number of Discharges
		Existing	Existing	Licensed	Operating	Licensed	Operating	(Current/ Actual)	Projected	Current Beds	Projected	(Days)	Actual	Projected
	Acute													
	Medical/Surgical	197	197	0	0	197	197	64,160	65,332	89%	91%	4.3	14,902	15,761
	Obstetrics (Maternity)									0%	0%			
	Pediatrics									0%	0%			
	Neonatal Intensive Care									0%	0%			
	ICU/CCU/SICU									0%	0%			
+ -										0%	0%			
	Total Acute	197	197	0	0	197	197	64,160	65,332	89%	91%	4.3	14,902	15,761
	Acute Rehabilitation									0%	0%			
+ -										0%	0%			
	Total Rehabilitation									0%	0%			
	Acute Psychiatric													

Add/Del Rows		Licensed Beds Existing	Operating Beds Existing	Change in Number of Beds (+/-) Licensed	Operating	Number of Beds After Project Completion (calculated) Licensed	Operating	Patient Days (Current/ Actual)	Patient Days Projected	Occupancy rate for Operating Beds Current Beds	Projected	Average Length of Stay (Days)	Number of Discharges Actual	Number of Discharges Projected
	Adult									0%	0%			
	Adolescent									0%	0%			
	Pediatric									0%	0%			
	Geriatric									0%	0%			
+ -										0%	0%			
	Total Acute Psychiatric									0%	0%			
	Chronic Disease									0%	0%			
+ -										0%	0%			
	Total Chronic Disease									0%	0%			
	Substance Abuse													
	detoxification									0%	0%			
	short-term intensive									0%	0%			
+ -										0%	0%			
	Total Substance Abuse									0%	0%			
	Skilled Nursing Facility													
	Level II									0%	0%			
	Level III									0%	0%			
	Level IV									0%	0%			
+ -										0%	0%			
	Total Skilled Nursing									0%	0%			

2.3 Complete the chart below If there are changes other than those listed in table above.

Add/Del Rows	**List other services** if Changing e.g. OR, MRI, etc	Existing Number of Units	Change in Number +/-	Proposed Number of Units	Existing Volume	Proposed Volume
+ -	Infusion Bays	19	17	36	26,720	32,128
+ -	Oncology Exam Rooms	12	4	16	13,824	16,069
+ -	Computed Tomography Simulator	1	0	1	1,211	1,236
+ -	Radiation Therapy -LINAC	2	0	2	22,771	23,226

Document Ready for Filing

When document is complete click on "document is ready to file". This will lock in the responses and date and time stamp the form. To make changes to the document un-check the "document is ready to file" box.
Edit document then lock file and submit Keep a copy for your records. Click on the "Save" button at the bottom of the page.

To submit the application electronically, click on the"E-mail submission to Determination of Need" button.

This document is ready to file: ☐ Date/time Stamp:

E-mail submission to Determination of Need

APPENDIX 8

NOTICE OF INTENT

Riley

Continued from Page 1A

As his disease progresses, Riley is losing his ability to use his thumb to operate a switch that helps him work his computer.

He is seeking to replace the microlight switch with a breath-operated device called a sip-and-puff switch.

But there's a problem.

"The company who manufactures it was unable to get components because of the supply chain issues," Riley said in a Facebook message exchange.

Usually upbeat in his social media postings, Riley said on Facebook recently that he was deeply distressed about the possibility of not being able to keep up with his online activity, including gaming and raising money for the Muscular Dystrophy Association.

"I'm starting to lose the use of my thumb, which is a big problem since I need it to actually be able to perform mouse clicks and it's crucial in order to be able to play any games."

Riley, who has a ventilator and a feeding tube, said he can still activate the microlight switch with a light touch of his thumb if he arranges his hands in a certain way.

Working with a camera on the bottom of the computer screen that senses his eye movements, he is able to use the microlight switch as a mouse clicker.

Sip-puff switch enables mouse clicks

But as the disease he was diagnosed with when he was 2 years old advances, moving his thumb is getting harder and harder.

"I did find a solution ... Or so I thought," Riley said on Facebook.

"I found a sip-puff switch, which is a way to perform mouse clicks with my mouth. I sent it to my OT (occupational therapist) who said it was a great idea and immediately put in for it.

"I figured everything was all set and I was likely to get it within a few months. Problem solved. Until I got the email today that the company who makes the device is having trouble getting the components and has no idea when or even if any new components will be coming in," Riley wrote.

MDA Shaving Cream Challenge

This is a looming problem for Riley, who estimates he is in touch with 200 people on any given day.

His social contacts include his gaming partners. Riley's favored video games include World of Warcraft and Forza Horizon.

He also has a community of friends on Facebook and other social media, including people such as actress Gabrielle Stone, whom he persuaded to participate in a "shaving cream challenge" to raise money for the MDA.

Actress Gabrielle Stone doing my MD awareness shaving cream challenge!

The challenge involves plunging both feet into a bowl of shaving cream, filming the experience and posting the video online.

"I am constantly on Tiktok, Instagram, Twitter and YouTube," Riley said in a Facebook message exchange.

"I use my computer all day. It's very important to me to be able to socialize and interact with the world, especially during Covid."

Riley is asking participants in the challenge to dye the shaving cream red for Valentine's Day. He planned to post himself participating in the challenge on Sunday (Feb. 13).

The shaving cream challenge may not entail the same bragging rights as getting dosed with a bucket of ice water for the ALS challenge that went viral several years ago.

But Riley said it has the benefit of being accessible to people with Duchenne MDA who are in wheelchairs and whose arms have become too weak to lift a bucket over their heads.

Shaving Cream Challenge 'feels like a spa treatment'

Challenge taker Stephanie E. Boosahda, Riley's former nurse, said the shaving cream feels like a spa treatment.

Riley "is just one of the most positive people I know. He's just fun to talk with. He's very thoughtful and thought-filled," Boosahda said.

"We wouldn't just watch TV we'd talk about the shows. I really looked forward to being in his company all the time."

Boosahda said working with Riley helped her understand the importance of assistive technology in the lives of people with severe disabilities.

"That's how he connects with everyone."

How a sip-and-puff switch works

The sip-and-puff switch, the Breeze, that Riley is seeking includes a headband and mouthpiece. It works by sensing sips and puffs of breath and converting them into mouse button clicks, joystick button presses or keyboard characters.

"Users 'take a sip' or 'blow a puff' of air into a wand that resembles a straw to create air pressure. This air pressure sends a signal to the device and ignites certain commands," according to Accessibleweb.com.

Currently, the device is not in stock at Origin Instrument Corp., the company Riley usually deals with through an assistive technology expert at Easter Seals.

And the company is not sure when it will be available.

Semiconductors in short supply

The problem is the lack of semiconductor parts for the sip-and-puff switch, said Mel Dashner of Origin Instruments Lab, which manufactures the device.

"Normally these parts are in stock or several weeks out," Dashner said in an email.

"We have some semiconductor parts on order with delivery dates into 2023. All of our products have been affected to some extent by supply chain issues, electronic components being the worst."

"Every year there are fewer and fewer companies that actually fabricate the high-end semiconductors and they are all running at capacity," Dashner said.

"Those companies have to triage which parts they will build and when. Like any business, they build the one that they have to under contract or that will make the most return."

The problem is the lack of semiconductor parts for the sip-and-puff switch, said Mel Dashner of Origin Instruments Lab, which manufactures the device.

"If your part isn't on the high priority list, then it's uncertain when your order will be filled," he said.

Riley is not giving up, and neither is his mother, Virginia Riley.

During an interview at their ranch house in Yarmouth Port, Virginia said she plans to reach out to area hospitals, including Cape Cod Hospital in Hyannis, to see if they have spare sip-and-puff switches.

In the meantime, Riley's contact at Easter Seals is exploring different possibilities and a friend of Riley's is trying to create a device on his own, Virginia said.

"The sooner the better," she said.

What is Duchenne muscular dystrophy?

There is no cure for Duchenne muscular dystrophy, a genetic disease that causes progressive muscle wasting.

Boys are affected more than girls, and people with DMD usually need a wheelchair by the age of 12, according to the Muscular Dystrophy Association.

The association's website said boys with Duchenne "usually did not survive much beyond their teen years."

But thanks to advances in cardiac and respiratory care, survival into the early 30s is becoming more common.

Riley has beat several major health challenges, although not without struggle.

He ended up at Cape Cod Hospital in intensive care for several days in the fall of 2018 after going into respiratory failure.

Social connections keep Riley active

"The doctors thought I would be brain damaged because my heart stopped for 45 minutes," Riley said in a Facebook message exchange.

His personal nurse at the time, Sharon Sabbatino, saw him go into respiratory distress. She couldn't find a pulse and immediately started CPR, Virginia said.

"Thank God she was here," she said. "She was supposed to be off."

"That saved me from brain damage," Riley said by Facebook message. "The doctors told me I either get a trach or I would not survive."

The tracheostomy tube is attached to a ventilator that helps Riley breathe by increasing the flow of oxygen to his lungs.

It was "the best thing that could have happened," Riley said of his tracheotomy.

He said he feels better than he did when he wore an oxygen mask.

"Now you can see his beautiful face," Virginia said.

Staying connected key to survival

On a recent winter day, Riley sipped chamomile tea through a straw and demonstrated a driving game to a visiting Times reporter. The pickup truck on the screen careered around tight corners at a fast speed under Riley's gaze and light thumb strokes.

He has a feeding tube but is able to eat most foods: French onion soup and sushi are favorites. At night the tracheotomy setup prevents him from talking — a headband sensor allows him to call for assistance by raising an eyebrow — but during the day Riley can engage in conversation.

Online he searches for movies to attend, courtesy of an accessible wheelchair and plans road trips. In September, Riley and his mom plan to attend two weddings, one for a relative and one for Sabbatino's daughter in New Hampshire.

"We try to have fun," Riley said.

On Oct. 30, Riley celebrated his 40th birthday with about 30 friends and family members at his Yarmouth Port home, including friends from his days at Dennis-Yarmouth Regional High School.

"If he was closed off from everything, he wouldn't have survived for so long," Virginia said.

Contact Cynthia McCormick at cmccormick@capecodonline.com.

Briefs

Continued from Page 3A

phase. Southside fire coverage is now consigned to firefighter-paramedics responding from a trailer outside the closed station in Monument Beach.

Selectmen have discussed combining a police-substation with a firehouse project. The last fire-station push was frustrated by the expensive cost of a possible Monument Beach property purchase along Route 28, and the realization that a favored tract at County Road, Pocasset, proved unsuitable in terms of reasonable emergency response times.

Paul Gately

Gift

Continued from Page 3A

pends, her latest donation will help the community college's nursing program expand beyond the 150 nursing students it serves each year to meet the community's growing need for nurses, college officials said.

"Her generosity continues," Cox said. "Mrs. Wilkens is among the single most influential donors across the country to community colleges."

MacKenzie Scott also supports community colleges

Community colleges typically have drawn the short stick when it comes to philanthropic contributions to higher education.

But that may be changing.

This past June, MacKenzie Scott, a writer and former wife of Jeff Bezos, announced she had given more than $2.73 billion to colleges and programs broadening access to higher education for underrepresented students, including community colleges, regional colleges and higher education nonprofits, according to Inside Higher Ed.

Cox said Wilkens and her late husband, Frank Wilkens, who died in 2011, got to know Cape Cod Community College when Kathleen Schatzberg was president.

Why is supporting nursing education important?

In a statement released by Cape Cod Community College, Wilkens said she valued the work the college is doing to educate nurses for the community.

"This is a vitally important field, and I know hospitals and healthcare facilities all over the region, including Cape Cod Healthcare, rely deeply on the talented healthcare professionals the college educates."

"The nursing faculty are at the center of that education."

Community college officials said they will name the first Wilkens Endowed Faculty Member in the fall semester beginning in September of 2022.

A schematic of the Frank and Maureen Wilkens Science and Engineering Center.

COURTESY OF CAPE COD COMMUNITY COLLEGE

Photo Shoot

Continued from Page 3A

Anyone who has had the motherboard go on a computer or the control chip in a car fail knows how quickly smart devices can become stupid and non-functional.

I can't solve most of the world's problems with high-tech devices, but I have a simple work around for camera enthusiasts that are fail safe — go manual.

Indeed turning off auto-exposure, autofocus and any other pre-programmed feature can be scary. Your photo can now be out of focus, poorly exposed but hopefully still wonderfully composed.

Because composition is the one thing your unique eye brings to a photograph. That is the starting point for going back to basics. Focusing the old-fashioned way can be cumbersome, but practice makes perfect.

There was a time when getting a properly exposed photograph was an art form. Now with an instant read-out screen on the camera back, no more guesswork, right? But how does the camera know what I want to look good in the photo, put a person in front of a bright window and see how it thinks.

I had a similar situation last week. The Cape Cod Lighthouse Charter School was working on a project for Holocaust Remembrance Day. Only one problem: The power was out.

No worries, I cranked up the sensor sensitivity on the camera and went to work. The wrong exposure was glowing at me from the screen back. The camera had exposed for the darkness and the room looked completely bright, definitely not an accurate representation of the power outage. Turning to manual mode and exposing for the light source, the exposure was corrected. Not a complex fix, I just had to be a bit smarter than the camera.

APPENDIX 9

ACO LETTER

The Commonwealth of Massachusetts
HEALTH POLICY COMMISSION
50 MILK STREET, 8TH FLOOR
BOSTON, MASSACHUSETTS 02109
(617) 979-1400

STUART H. ALTMAN
CHAIR

DAVID M. SELTZ
EXECUTIVE DIRECTOR

December 23, 2019

Gregory Watts
Steward Health Care Network, Inc.
89 A Street
Needham, MA 02494

RE: ACO Certification

Dear Mr. Watts:

Congratulations! The Health Policy Commission (HPC) is pleased to inform you that Steward Health Care Network meets the requirements for ACO Certification. This certification is effective from the date of this letter through December 31, 2021.

The ACO Certification program, in alignment with other state agencies including MassHealth, is designed to accelerate care delivery transformation in Massachusetts and promote a high quality, efficient health system. ACOs participating in the program have met a set of objective criteria focused on core ACO capabilities including supporting patient-centered care and governance, using data to drive quality improvement, and investing in population health. Steward Health Care Network meets those criteria.

The HPC will promote Steward Health Care Network as a Certified ACO on our website and in our marketing and public materials. In addition, a logo is enclosed for your use in accordance with the attached Terms of Use. We hope you will use the logo to highlight the ACO Certification to your patients, payers, and others.

The HPC looks forward to your continued engagement in the ACO Certification program over the next two years.

Thank you for your dedication to providing accountable, coordinated health care to your patients. If you have any questions about this letter or the ACO Certification program, please do not hesitate to contact Mike Stanek, Manager, at HPC-Certification@mass.gov or (617) 757-1649.

Best wishes,

David Seltz
Executive Director

The Commonwealth of Massachusetts
HEALTH POLICY COMMISSION
50 MILK STREET, 8TH FLOOR
BOSTON, MASSACHUSETTS 02109
(617) 979-1400

STUART H. ALTMAN
CHAIR

DAVID M. SELTZ
EXECUTIVE DIRECTOR

December 30, 2021

Joseph Weinstein
Steward Health Care Network, Inc.
30 Perwal Street
Westwood, MA, 02090

RE: Temporary Extension of ACO Certification

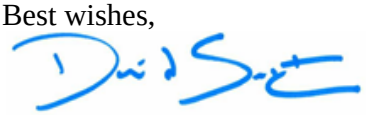
Dear Dr. Weinstein:

In 2019 the Health Policy Commission (HPC) issued Steward Health Care Network, Inc. an ACO Certification effective through December 31, 2021. Due to continuing disruptions associated with the COVID-19 pandemic, this year the HPC extended both the application period and the review period for ACO Certification renewals. As of the date of this letter, Steward Health Care Network, Inc.'s application for certification under the Learning, Equity, and Patient-Centeredness (LEAP) 2022-2023 standards is under review.

The HPC is hereby temporarily extending Steward Health Care Network, Inc.'s current ACO Certification pending completion of review of its application for LEAP 2022-2023 certification and issuance of a final determination.

Thank you for your continued participation in this collaborative process and for your dedication to providing accountable, coordinated health care to your patients during this time of immense challenge for health care providers and organizations. If you have any questions about this letter or the ACO Certification program, please do not hesitate to contact Mike Stanek, Senior Manager, at HPC-Certification@mass.gov.

Best wishes,



David Seltz
Executive Director

cc:

Elana Horwitz
Contract Manager
MassHealth

APPENDIX 10

ARTICLES OF INCORPORATION

LLY

Examiner

FORM CD 180 Rev. 3-79 20M-11-81-D907806

The Commonwealth of Massachusetts

MICHAEL JOSEPH CONNOLLY
Secretary of State
ONE ASHBURTON PLACE, BOSTON, MASS. 02108

ARTICLES OF ORGANIZATION

(Under G.L. Ch. 180)
Incorporators

NAME — **RESIDENCE**

Include given name in full in case of natural persons; in case of a corporation, give state of incorporation.

JAMES F. LYONS — 520 Cotuit Bay Drive, Cotuit, MA 02635

KWB

Name Approved

11008

The above-named incorporator(s) do hereby associate (themselves) with the intention of forming a corporation under the provisions of General Laws, Chapter 180 and hereby state(s):

1. The name by which the corporation shall be known is:

   CAPE COD HEALTH SYSTEMS, INC.

2. The purposes for which the corporation is formed is as follows:

   See "Purposes for which the Corporation is Formed" on Continuation Sheets 2A-2C.

84 144043

C ☐
P ☐
M ☐
R.A. ☐

10

C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8 1/2 x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

3. If the corporation has more than one class of members, the designation of such classes, the manner of election or appointment, the duration of membership and the qualification and rights, including voting rights, of the members of each class, are as follows: -

See "Classes of Members" on Continuation Sheet 2C.

*4. Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or members, or of any class of members, are as follows:-

See "Other Lawful Provisions" on Continuation Sheets 2C-2E.

*If there are no provisions state "None".

ARTICLES OF ORGANIZATION
of
CAPE COD HEALTH SYSTEMS, INC.
a Massachusetts Charitable Corporation

Purposes for which the Corporation is Formed

1. The purposes for which CAPE COD HEALTH SYSTEMS, INC. ("the Corporation") is being formed are to promote and support by donation, loan or otherwise, the interests and purposes of Cape and Islands Health Resources, Inc., Cape Cod Hospital and Cape Cod Hospital Foundation in promoting the community's health and otherwise to operate for any charitable, scientific or educational purposes in any manner consistent with the requirements of Section 501(c)(3) of the Internal Revenue Code of 1954, as amended (or the corresponding provision of any future United States Internal Revenue law) (hereinafter referred to as "the Code"). The Corporation is organized exclusively for charitable, scientific or educational purposes, including, for such purposes, the making of distributions to organizations that qualify as exempt organizations under Section 501(c)(3) of the Code.

2. The Corporation shall have the following powers in furtherance of its corporate purposes:

(a) The Corporation shall have perpetual succession in its corporate name.

(b) The Corporation may sue and be sued.

(c) The Corporation may have a corporate seal which it may alter at its pleasure.

(d) The Corporation may elect or appoint directors, officers, employees and other agents, fix their compensation and define their duties and obligations.

(e) The Corporation may purchase, receive or take by grant, gift, devise, bequest or otherwise, lease, or otherwise acquire, own, hold, improve, employ, use and otherwise deal in and with, real or personal property, or any interest therein, wherever situated, in an unlimited amount.

(f) The Corporation may sell, convey, lease, exchange, transfer or otherwise dispose of, or mortgage, pledge, encumber or create a security interest in, all or any of its property, or any interest therein, wherever situated.

(g) The Corporation may purchase, take, receive, subscribe for, or otherwise acquire, own, hold, vote, employ, sell, lend, lease, exchange, transfer, or otherwise dispose of, mortgage, pledge, use and otherwise deal in and with, bonds and other obligations, shares, or other securities or interests issued by others, whether engaged in similar or different business, governmental, or other activities.

(h) The Corporation may make contracts, give guarantees and incur liabilities, borrow money at such rates of interest as the Corporation may determine, issue its notes, bonds or other obligations, and secure any of its obligations by mortgage, pledge or encumbrance of, or security interest in, all or any of its property or any interest therein, wherever situated.

(i) The Corporation may lend money, invest and reinvest its funds, and take and hold real and personal property as security for the payment of funds so loaned or invested.

(j) The Corporation may do business, carry on its operations, and have offices and exercise the powers granted by Massachusetts General Laws, Chapter 180, in any jurisdiction within or without the United States, although the Corporation shall not be operated for the primary purpose of carrying on for profit a trade or business unrelated to its tax exempt purposes.

(k) The Corporation may pay pensions, establish and carry out pension, savings, thrift and other retirement and benefit plans, trusts and provisions for any or all of its directors, officers and employees.

(l) The Corporation may make donations in such amounts as the Members or directors shall determine, irrespective of corporate benefit, for the public welfare or for community fund, hospital, charitable, religious, educational, scientific, civic or similar purposes, and in time of war or other national emergency in aid thereof; provided that, as long as the Corporation is entitled to exemption from Federal income tax under Section 501(c)(3) of the Code, it shall make no contribution for other than religious, charitable, scientific, testing for public safety, literary, or educational purposes or for the prevention of cruelty to children or animals.

(m) The Corporation may be an incorporator of other corporations of any type or kind.

(n) The Corporation may be a partner in any business enterprise which it would have power to conduct by itself.

Notwithstanding any other provision of these Articles, the Corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from Federal income tax under Section 501(c)(3) of the Code or (b) by a corporation, contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) or 2522(a)(2) of the Code.

Classes of Members

1. There shall be four classes of members of the Corporation:

(a) Initial voting members--The initial voting members of the Corporation shall consist of those persons who were voting members of Cape Cod Hospital at the time of incorporation of the Corporation. The initial voting members shall serve until the close of the first annual meeting of the members.

(b) Regular members--The Corporation shall have not more than one hundred (100) regular members who shall be elected at each annual meeting of the members from a slate submitted by the nominating committee. Regular members shall be voting members and shall serve for a term of one year.

(c) Ex-officio members--The directors and officers of the Corporation, the Chief of Staff and Vice Chief of Cape Cod Hospital, the President of the Cape Cod Hospital Aid Association and members of the legislature of the Commonwealth of Massachusetts elected from Mashpee, Sandwich, Barnstable, Yarmouth, Dennis, Harwich, Brewster, Chatham, Orleans, Eastham, Wellfleet, Truro and Provincetown shall be ex-officio and voting members of the Corporation.

(d) Associate members--Associate members shall be those person designated as such by the board of directors. Associate members shall be entitled to attend all meetings of the members and to express their views, but shall be without vote.

Other Lawful Provisions

1. Each person at any time a director, officer, employee or agent of the Corporation and any person who serves at its request as a director, officer, employee or other agent of another organization in which the Corporation directly or indirectly has an interest (including any person

who is no longer a director, officer, employee or agent of the Corporation or of said other organization) shall, to the extent permitted by law and only to the extent that the status of the Corporation as an organization exempt under Section 501(c)(3) of the Code, is not affected thereby and without prejudice to any other rights he might have, be entitled to be reimbursed by the Corporation for, and indemnified by the Corporation against, all costs and expenses reasonably incurred by him in connection with or arising out of any claims made, or any action, suit or proceeding threatened or brought against him or in which he may be involved as a party or otherwise by reason of any action alleged to have been taken or omitted by him as such director, officer, employee or agent, whether or not he continues to be such director, officer, employee or agent at the time of incurring such costs and expenses, including amounts paid or incurred by him in connection with reasonable settlements (other than amounts paid to the Corporation itself) of any claim, action, suit or proceeding, provided, that no person shall be so indemnified in relation to any matter which has been made the subject of a settlement, except with the approval of a court of competent jurisdiction or a vote of a majority of the voting members of the Corporation, or by a vote of a disinterested majority of directors then in office. Any rights to reimbursement and indemnification granted hereby to any such director, officer, employee or agent shall extend to his heirs, executors and administrators. No such reimbursement or indemnification shall be provided for any person with respect to any matter as to which he shall have been adjudicated in any proceeding not to have acted in good faith in the reasonable belief that his action was in the best interests of the Corporation. Reimbursement or indemnification hereunder may, in the discretion of the Board of Directors, include payments by the Corporation of costs and expenses incurred in defending a civil or criminal action or proceeding in advance of the final disposition of such action or proceeding upon receipt of an undertaking by the person indemnified to repay such payment if he shall be adjudicated to be not entitled to indemnification hereunder. Nothing herein contained is intended to, or shall, prevent a settlement by the Corporation prior to final adjudication of any claim, including claims for reimbursement or indemnification hereunder, against the Corporation when such settlement appears to be in the interests of the Corporation. Each such person shall, by reason of his continuing such service or accepting such election or employment, have the right to be reimbursed and indemnified by the Corporation, as above set forth with the same force and effect as if the Corporation, to induce him to continue so to serve or to accept such election or employment, specifically agreed in writing to

reimburse and indemnify him in accordance with the foregoing provisions of this Section. No director or officer of the Corporation shall be liable to anyone for making any determination as to the existence or absence of liability of the Corporation hereunder for making or refusing to make any payment hereunder in reliance upon advice of counsel.

2. Neither the Board of Directors, nor any member or officer, shall have power to bind the members or the individual directors or officers of the Corporation, personally. All persons or corporations extending credit to, contracting with, or having claims against the Corporation, shall look only to the funds and property of the Corporation for payment of any such contract or claim or for the payment of any debt, damage, judgment or decree, or of any money that may otherwise become due and payable to them from the Corporation, so that neither the Members, nor the directors, nor the officers, present or future, shall be personally liable therefor.

3. The By-Laws of the Corporation may be amended by affirmative vote of a two-thirds majority of the Board of Directors then serving at the annual meeting or any regular or special meeting of the board, provided that a brief description of such proposed amendment(s) shall have been published in or with the notice of the meeting.

4. Dissolution shall be as follows:

In the event of the dissolution of the Corporation, the Board of Directors, after paying or making provision for the payment of all the liabilities of the Corporation, shall distribute, in any proportions considered prudent, all the assets of the Corporation to Cape and Islands Health Resources, Inc., if then in existence and if qualified under Section 501(c)(3) of the Code, otherwise in such manner, or to such organization or organizations organized and operated exclusively for charitable, educational or scientific purposes as shall at the time qualify as an exempt organization or organizations under Section 501(c)(3) of the Code, and as shall be affiliated with the Corporation, as the Board of Directors shall determine. Any such assets not so disposed of shall be disposed of by a court of competent jurisdiction of the county in which the principal office of the Corporation is then located, exclusively for such purposes or to such organization or organizations, as said court shall determine, which are organized and operated exclusively for such purposes.

Continuation Sheet 2F

Directors

The name, residence, and post office address of each of the initial directors of the corporation are as follows:

NAME	RESIDENCE	P.O. ADDRESS
Daniel J. Fern, Esq.	MA	P.O. Box 518 436 Main Street Hyannis, MA 02601
Kenneth F. Eldredge	"	P.O. Box 640 Cape Cod Hospital 27 Park Street Hyannis, MA 02601
Milton Penn	"	"
James H. Rice	"	"
Mary Marble	"	"
Forest Beam	"	"
Joseph Daluz	"	"
James F. Hall	"	"
William P. Luke, M.D.	"	"
John Lee Marchildon	"	"
Joshua A. Nickerson	"	"
Elisabeth W. Vaughn	"	"

5. By-laws of the corporation have been duly adopted and the initial directors, president, treasurer and clerk or other presiding, financial or recording officers whose names are set out below, have been duly elected.

6. The effective date of organization of the corporation shall be the date of filing with the Secretary of the Commonwealth or if later date is desired, specify date, (not more than 30 days after date of filing).

7. The following information shall not for any purpose be treated as a permanent part of the Articles of Organization of the corporation.

   a. The post office address of the initial principal office of the corporation in Massachusetts is:

   c/o Cape Cod Hospital, P.O. Box 640, Hyannis, MA 02601

   b. The name, residence, and post office address of each of the initial directors and following officers of the corporation are as follows:

	NAME	RESIDENCE	POST OFFICE ADDRESS
President:	James F. Lyons	(MA)	520 Cotuit Bay Drive Cotuit, MA 02635
Treasurer:	Kenneth F. Eldredge	(MA)	c/o Cape Cod Hospital P.O. Box 640 27 Park Street Hyannis, MA 02601
Clerk: /			
Secretary Mary Marble		(MA)	"

Directors: (or officers having the powers of directors)

See "Directors" on Continuation Sheet 2F.

   c. The date initially adopted on which the corporation's fiscal year ends is:
   September 30th of each year.

   d. The date initially fixed in the by-laws for the annual meeting of members of the corporation is:
   the first Tuesday in December of each year.

   e. The name and business address of the resident agent, if any, of the corporation is: N/A

IN WITNESS WHEREOF, and under the penalties of perjury the INCORPORATOR(S) sign(s) these Articles of Organization this 1st day of May 19 84.

I/~~We~~ the below signed INCORPORATORS do hereby certify under the pains and penalties of perjury that I/~~We~~ have not been convicted of any crimes relating to alcohol or gaming within the past ten years; I/~~We~~ do hereby further certify that to the best of my/~~our~~ knowledge the above named principal officers have not been similarly convicted. If so convicted, explain.

James F. Lyons

.....

.....

The signature of each incorporator which is not a natural person must be by an individual who shall show the capacity in which he acts and by signing shall represent under the penalties of perjury that he is duly authorized on its behalf to sign these Articles of Organization.

26996

THE COMMONWEALTH OF MASSACHUSETTS

[illegible] 3 P 2:22

[illegible]RATION DIVISION

ARTICLES OF ORGANIZATION
GENERAL LAWS, CHAPTER 180

I hereby certify that, upon an examination of the within-written articles of organization, duly submitted to me, it appears that the provisions of the General Laws relative to the organization of corporations have been complied with, and I hereby approve said articles; and the filing fee in the amount of $30.00 having been paid, said articles are deemed to have been filed with me this 23rd day of May 1984

Effective date

Michael Joseph Connolly

MICHAEL JOSEPH CONNOLLY
Secretary of State

TO BE FILLED IN BY CORPORATION
PHOTO COPY OF ARTICLES OF ORGANIZATION TO BE SENT

TO:

Donna Cameron, Esq.
Herrick & Smith
100 Federal Street
Boston, MA 02110

Telephone 357-9000

Filing Fee $30.00

Copy Mailed

JUN 06 1984

FEDERAL IDENTIFICATION NO. 22-2600704

Examiner

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

041 042 043 073 044 045

JD/Consent

Name Approved

RESTATED ARTICLES OF ORGANIZATION

(General Laws, Chapter 180, Section 7)

We, James F. Lyons, *President / ~~Vice President~~

and Gerald W. Hazard, M.D., *Clerk / ~~Assistant Clerk~~ Secretary

of Cape Cod Health Systems, Inc.,
(Exact name of corporation)

located at 27 Park Street, Hyannis, MA: 02601,
(Street address of corporation in Massachusetts)

do hereby certify that the following Restatement of the Articles of Organization was duly adopted at a meeting

held on January 22, , 19 96 , by a vote of:

84 members, _____ directors, or _____ shareholders,

being at least two-thirds of its members/directors legally qualified to vote in meetings of the corporation (or, in the case of a corporation having capital stock, by the holders of at least two thirds of the capital stock having the right to vote therein):

ARTICLE I

The name of the corporation is:

Cape Cod Healthcare, Inc.

ARTICLE II

The purpose of the corporation is to engage in the following activities:

See Continuation Sheet 2A attached hereto and incorporated herein by reference.

C X
P X
M ☐
R.A. ☐

9

P.C.

**Delete the inapplicable words.*
Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on one side only of separate 8 1/2 x 11 sheets of paper with a left margin of at least 1 inch. Additions to more than one article may be made on a single sheet as long as each article requiring each addition is clearly indicated.

1-23-96

ARTICLE III

A corporation may have one or more classes of members. If it does, the designation of such classes, the manner of election or appointments, the duration of membership and the qualification and rights, including voting rights, of the members of each class, may be set forth in the by-laws of the corporation or may be set forth below:

The designation of members of the corporation, the manner of their election or appointment, the duration of membership and the qualification and rights, including voting rights, of the members are set forth in the By-laws.

ARTICLE IV

**Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or members, or of any class of members, are as follows:

See Continuation Sheet 4A attached hereto and incorporated herein by reference.

***If there are no provisions, state "None".*

Note: The preceding four (4) articles are considered to be permanent and may ONLY be changed by filing appropriate Articles of Amendment.

CONTINUATION SHEET 2A

The Corporation is organized for the exclusively charitable and educational purposes of promoting and coordinating the provision of high quality health and related services and to promote or support the general health of the residents of The Commonwealth of Massachusetts and, to that end, shall be operated exclusively for the benefit of Cape Cod Hospital, Inc. ("Cape Cod"), Falmouth Hospital Association, Inc. ("Falmouth") and any other corporations described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, (the "Code") of which the Corporation, Cape Cod, Falmouth or any corporation controlled by any of them is the sole member, and may do all other things permitted or authorized by the laws of The Commonwealth of Massachusetts for corporations organized under G.L. ch. 180.

ds1/164489

CONTINUATION SHEET 4A

Subject to the limitations contained in paragraphs (a) through (e) below, the Corporation shall have the following powers: (1) the powers set forth in Massachusetts General Laws c. 156B, §9 (a) through (k); (2) the power to pay pensions and to establish and carry out pension, savings, thrift and other retirement and benefit plans, trusts and provisions for any or all of its trustees, officers and employees; and (3) the power to be a partner with one or more other organizations exempt from Federal income taxation under §501(c)(3) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States internal revenue law, hereinafter the "Internal Revenue Code") in any enterprise which carries out the purposes on which the Corporation's tax-exempt status is based.

(a) Notwithstanding any other provision of these Articles, the Corporation shall not carry on any activities not permitted to be carried on (i) by a corporation exempt from Federal income tax under §501(c)(3) of the Internal Revenue Code or (ii) by a corporation, contributions to which are deductible under §170(c)(2) of the Internal Revenue Code.

(b) No part of the net earnings of the Corporation shall inure to the benefit of any private member or individual, and no trustee, officer or employee of the Corporation shall receive or be lawfully entitled to receive any pecuniary profit of any kind therefrom except reasonable compensation for services in effecting one or more of its purposes.

(c) No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting, to influence legislation, and the Corporation shall not participate in, or intervene in (including the publishing or distributing of statements) any political campaign on behalf of any candidate for public office.

(d) Persons of any race and of either sex shall be entitled to all the rights, privileges, programs and activities generally accorded or made available to participants in the Corporation, its programs and activities, and the Corporation shall not discriminate on the basis of race or sex in administering its policies and programs.

(e) In the event of dissolution of the Corporation, the assets of the Corporation shall be distributed pursuant to Massachusetts General Laws c. 180, §11A to such organization or organizations with similar charitable, religious, scientific and educational purposes as at the date of dissolution are described in §501(c)(3) of the Internal Revenue Code.

(f) Meetings of the trustees may be held anywhere in the United States.

(g) No trustee or officer of the Corporation shall be personally liable to the Corporation for monetary damages for breach of fiduciary duty as a trustee or officer; provided, however, that this paragraph shall not eliminate or limit the liability of a trustee or officer of the Corporation (i) for any breach of the trustee's or officer's duty of loyalty to the Corporation, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, or (iii) for any transaction from which the trustee or officer derived an improper personal benefit. No amendment, modification or repeal of this paragraph, directly or by adoption of an inconsistent provision of these Articles, by the trustees of the Corporation shall apply to or have any effect on the liability or alleged liability of any trustee or officer of the Corporation for or with respect to any acts or omissions of such trustee or officer occurring prior to such amendment, modification or repeal.

Consent to Use of Name

The undersigned Massachusetts corporation hereby consents to the use of the name "CAPE COD HEALTHCARE, INC." in connection with the name change of Cape Cod Health Systems, Inc., a Massachusetts corporation having its principal business office at 27 Park Street, Hyannis, Massachusetts 02601.

CAPE COD HEALTH CARE CORPORATION

By: Mary J. LeClair
Mary J. LeClair, Treasurer

Date: January 19, 1996

1-235872

CONTINUATION SHEET 6B
TRUSTEES

NAME	RESIDENTIAL ADDRESS	POST OFFICE ADDRESS
Robert V. Antonucci	93 Ambleside Drive West Falmouth, MA 02574	P.O. Box 488, West Falmouth, MA 02574
Richard J. Bravman, D.M.D.	208 Scudder Bay Circle, Centerville, MA 02632	
Edmund Fruean, III	18 Crab Creek Lane, Yarmouthport, MA 02675	
Edward Gelsthorpe	50 South Street Dennis, MA 02641	P. O. Box 857 East Dennis, MA 02641
Kenneth A. Heisler,M.D.	78 Main Street Falmouth, MA 02540	
Peter Hickman	Main Street Cotuit, MA 02635	P. O. Box 528, Cotuit, MA 02635
Michael T. Leahy, M.D.	68 Overlook Drive Waquoit, MA 02536	
Victoria H. Lowell	188 Sippewissett Road, Falmouth, MA 02540	
Barrett C. Nichols, Jr.	11 Stable Lane Yarmouthport, MA 02675	P. O. Box 71 Yarmouthport, MA 02675
Thomas S. Olsen	31 Bumps River Road Osterville, MA 02655	
David J. Penfield, M.D.	38 Cahoon Road Harwich, MA 02645	
Willis B. Reals	73 Clowes Road Falmouth, MA 02540	
Charles N. Robinson	39 Barrister's Walk Dennis, MA 02638	
Anne Q. Spaulding	Blossom Lane East Orleans, MA 02643	P. O. Box 804 East Orleans, MA 02643
James F. Lyons	520 Cotuit Bay Drive Cotuit, MA 02635	
Roy A. Hitchings, Jr.	18 Ridgeview Drive West Falmouth, MA 02674	P. O. Box 1236 West Falmouth, MA 02574

ARTICLE V

The effective date of the Restated Articles of Organization of the corporation shall be the date approved and filed by the Secretary of the Commonwealth. If a *later* effective date is desired, specify such date which shall not be more than thirty days after the date of filing.

June 1, 1996

ARTICLE VI

The information contained in Article VI is not a permanent part of the Articles of Organization.

a. The street address of the principal office of the corporation *in Massachusetts* is: (post office boxes are not acceptable)

27 Park Street, Hyannis, MA 02601

b. The name, residential address and post office address of each director and officer of the corporation is:

	NAME	RESIDENTIAL ADDRESS	POST OFFICE ADDRESS
President:	James F. Lyons	520 Cotuit Bay Drive Cotuit, MA 02635	Same
Treasurer:	Willis B. Reals	73 Clowes Road Falmouth, MA 02540	Same
Clerk:	Edward Gelsthorpe	50 South Street Dennis, MA 02641	P. O. Box 857 East Dennis, MA 02641
Directors: (or officers having the powers of directors)	See Continuation Sheet 6B attached hereto and incorporated herein by reference.		

c. The fiscal year of the corporation shall end on the last day of the month of: September

d. The name and *business* address of the *resident agent* of the corporation, if any, is: N/A

**We further certify that the foregoing Restated Articles of Organization affect no amendments to the Articles of Organization of the corporation as heretofore amended, except amendments to the following articles. Briefly describe amendments below:

Articles I, II, III and IV are amended as set forth herein.

SIGNED UNDER THE PENALTIES OF PERJURY, this 31st day of May, 19 96,

_____, *President / ~~Vice President~~,

_____, *Clerk / ~~Assistant Clerk~~ Secretary

*Delete the inapplicable words.

**If there are no such amendments, state "None".

539085

SECRETARY OF
THE COMMONWEALTH

96 MAY 31 PM 3:57

THE COMMONWEALTH OF MASSACHUSETTS

RESTATED ARTICLES OF ORGANIZATION

(General Laws, Chapter 180, Section 7)

I hereby approve the within Restated Articles of Organization and, the filing fee in the amount of $ 35000 having been paid, said articles are deemed to have been filed with me this 31st day of May, 19 96.

Effective Date: JUNE 1, 1996

William Francis Galvin

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION

Photocopy of document to be sent to:

Jeffrey L. Heidt, Esq.
Choate, Hall & Stewart
Exchange Place
53 State Street
Boston, Massachusetts 02110

Telephone: (617) 248-5000

FEDERAL IDENTIFICATION NO. 22-2600704 (1) | FEDERAL IDENTIFICATION NO 04-2828094 (2) | FEDERAL IDENTIFICATION NO. 04-2859578 (3) | FEDERAL IDENTIFICATION NO. 04-2881810 (4)

Fee: $35.00 (m)

(m) (m)

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

Examiner

ARTICLES OF *~~CONSOLIDATION~~ / *MERGER

(General Laws, Chapter 180, Section 10)
Domestic and Domestic Corporations

*~~Consolidation~~ / *merger of

(1) (S) Cape Cod Healthcare, Inc.
(2) (m) Falmouth Hospital Foundation, Inc.
(3) (m) Cape Cod Hospital Foundation, Inc.

and

(4) (m) Visiting Nursing Association of Cape Cod Foundation, Inc.,

the constituent corporations, into

(1) (S) Cape Cod Healthcare, Inc.,

*one of the constituent corporations.

The undersigned officers of each of the constituent corporations certify under the penalties of perjury as follows:

1. The agreement of *~~consolidation~~ / *merger was duly adopted in accordance and compliance with the requirements of General Laws, Chapter 180, Section 10.

2. That if any of the constituent corporations constitutes a public charity, then the resulting or surviving corporation shall be a public charity.

3. The resulting or surviving corporation shall furnish a copy of the agreement of *~~consolidation~~ / *merger to any of its members or to any person who was a stockholder or member of any constituent corporation upon written request and without charge.

4. The effective date of the *~~consolidation~~ / *merger determined pursuant to the agreement of *~~consolidation~~ / *merger shall be the date approved and filed by the Secretary of the Commonwealth. If a *later* effective date is desired, specify such date which shall not be more than *thirty days* after the date of filing:

July 1, 1999

5. **(For a merger)**
(a) The following amendments to the Articles of Organization of the *surviving* corporation have been effected pursuant to the agreement of merger: None

C ☐
P ☐
M ☐
R.A. ☐

P.C.

*Delete the inapplicable word.

(For a consolidation)

~~(b) The purpose of the resulting corporation is to engage in the following activities:~~

~~*(c) The resulting corporation may have one or more classes of members. If so, the designation of such classes, the manner of election or appointment, the duration of membership and the qualifications and rights, including voting rights, of the members of each class, may be set forth in the by-laws of the corporation or may be set forth below:~~

~~*(d) Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the resulting corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or members, or of any class of members, are as follows:~~

6. The information contained in Item 6 is *not* a *permanent* part of the Articles of Organization of the ~~resulting~~/ *surviving corporation.

(a) The street address of the ~~resulting~~/ *surviving corporation in Massachusetts is: *(post office boxes are not acceptable)*

88 Lewis Bay Road
Hyannis, MA 02601

**Delete the inapplicable word.* ***If there are no provisions state "None".*

Continuation Sheet 6B
to the
Articles of Merger
of
Cape Cod Healthcare, Inc.
Falmouth Hospital Foundation, Inc.
Cape Cod Hospital Foundation, Inc.
Visiting Nursing Association of Cape Cod Foundation, Inc.

Officers

Name	Residential Address
Stephen L. Abbott President and CEO	88 Lewis Bay Road Hyannis, MA 02601
Joel Crowell Treasurer	221 Willow Street Yarmouthport, MA 02675
Richard Adams, M.D. Clerk	139 Lakeview Avenue Falmouth, MA 02540

Directors

Stephen L. Abbott	88 Lewis Bay Road Hyannis, MA 02601
Richard Adams, M.D.	139 Lakeview Avenue Falmouth, MA 02540
James Buckingham	19 Fish House Road E. Sandwich, MA 02537
Elliott Carr	19 West Road - Box 10 Orleans, MA 02653
Alexandra MacCallum Clark	21 Ocean Tide Road Osterville, MA 02655
Joel Crowell	221 Willow Street Yarmouthport, MA 02675

Directors

Name	Residential Address
Paul Dussault	295 Main Street Falmouth, MA 02540
Evangelos Geraniotis, M.D.	110 Main Street Hyannis, MA 02601
Leo F. Gildea	83 Oyster Way Osterville, MA 02655-2492
John Holland	5 Madaket Place Mashpee, MA 02649
Victoria Lowell	188 Sippewissett Road Falmouth, MA 02540
Peter McDermott	15 Scotlin Way Harwich, MA 02645
Robert McNutt, M.D.	16 West Road Orleans, MA 02653
Barrett C. Nichols, Jr.	11 Stable Lane Yarmouthport, MA 02675
Michael Oats, M.D.	35 Saddleback Lane N. Falmouth, MA 02556
Brian O'Malley, M.D.	16 Shankpainter Road Provincetown, MA 02657
Willis B. Reals	73 Clowes Drive Falmouth, MA 02540
Jennifer Roberts, Esq.	184 Old County Road Sandwich, MA 02537
David P. Sampson	220 Sandwich Road Bourne, MA 02532

Directors

Name	Residential Address
Sheila Vanderhoef	2500 State Highway Eastham, MA 02642
Robert Yoo, M.D.	26 Gleason Street Hyannis, MA 02601

(b) The name, residential address and post office address of each director and officer of the *resulting / *surviving corporation is:

	NAME	RESIDENTIAL ADDRESS	POST OFFICE ADDRESS
President:			
Treasurer:			
Clerk:			
Directors:			

(c) The fiscal year (i.e. tax year) of the *resulting / *~~surviving~~ corporation shall end on the last day of the month of:

(d) ~~The name and business address of the resident agent, if any, of the *resulting / *surviving corporation is:~~

The undersigned officers of the several constituent corporations listed herein further state under the penalties of perjury as to their respective corporations that the agreement of *~~consolidation~~ / *merger has been duly executed on behalf of such corporations and duly approved by the members / ~~stockholders / directors~~ of such corporations in the manner required by General Laws, Chapter 180, Section 10.

TO BE EXECUTED ON BEHALF OF EACH CONSTITUENT CORPORATION

James C. Chingos, CHAIRMAN
James C. Chingos, M.D., *President / *Vice President

Joseph Signore
Joseph A. Signore, *Clerk / *Assistant Clerk

of Cape Cod Hospital Foundation, Inc.
(Name of constituent corporation)

Sarah Neese, CHAIRMAN
Sarah Neese, *President / *~~Vice President~~

Mary Crowell
Mary Crowell, *Clerk / *~~Assistant Clerk~~

of Visiting Nursing Association of Cape Cod Foundation, Inc.
(Name of constituent corporation)

**Delete the inapplicable words.*

(b) The name, residential address and post office address of each director and officer of the ~~resulting~~ / *surviving corporation is:

	NAME	RESIDENTIAL ADDRESS	POST OFFICE ADDRESS
President:	See Continuation Sheet 6B		
Treasurer:			
Clerk:			
Directors:	See Continuation Sheet 6B		

(c) The fiscal year (i.e. tax year) of the ~~resulting~~ / *surviving corporation shall end on the last day of the month of: September

(d) The name and business address of the resident agent, if any, of the ~~resulting~~ / *surviving corporation is: N/A

The undersigned officers of the several constituent corporations listed herein further state under the penalties of perjury as to their respective corporations that the agreement of ~~consolidation~~ / *merger has been duly executed on behalf of such corporations and duly approved by the members /~~stockholders~~ /~~directors~~ of such corporations in the manner required by General Laws, Chapter 180, Section 10.

TO BE EXECUTED ON BEHALF OF EACH CONSTITUENT CORPORATION

Stephen L. Abbott, *President / *~~Vice President~~

Anne D. Spaulding, *Clerk / *Assistant Clerk

of Cape Cod Healthcare, Inc.
(Name of constituent corporation)

Margaret J. Clifford, *President / *~~Vice President~~

Paul E. Dussault, *Clerk / *~~Assistant Clerk~~

of Falmouth Hospital Foundation, Inc.
(Name of constituent corporation)

*~~Delete the inapplicable words.~~

2618

665123

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF *~~CONSOLIDATION~~ / *MERGER
(General Laws, Chapter 180, Section 10)
Domestic and Domestic Corporations

I hereby approve the within Articles of *Consolidation / *Merger and, the filing fee in the amount of $ 35.00, having been paid, said articles are deemed to have been filed with me this 30th day of June, 1999.

99 JUN 30 AM 10:20

Effective date: July 1, 1999

William Francis Galvin

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION
Photocopy of document to be sent to:

James P. Hawkins, Esq.
Choate, Hall & Stewart
Exchange Place
53 State Street
Boston, MA 02109

Telephone: 617-248-5000

APPENDIX 11

AFFIDAVIT

Massachusetts Department of Public Health
Determination of Need
Affidavit of Truthfulness and Compliance with Law and Disclosure Form 100.405(B)

Version: 7-6-17

Instructions: Complete information below. When complete check the box "This document is ready to print:". This will date stamp and lock the form. Print Form. Each person must sign and date the form. When all signatures have been collected, scan the document and e-mail to: **dph.don@state.ma.us** Include all attachments as requested.

Application Number: CCHC-22021416-HE

Original Application Date: 03/01/2022

Applicant Name: Cape Cod Healthcare, Inc.

Application Type: Hospital/Clinic Substantial Capital Expenditure

Applicant's Business Type: ☒ Corporation ☐ Limited Partnership ☐ Partnership ☐ Trust ☐ LLC ☐ Other

Is the Applicant the sole member or sole shareholder of the Health Facility(ies) that are the subject of this Application? ☒ Yes ☐ No

The undersigned certifies under the pains and penalties of perjury:

1. The Applicant is the sole corporate member or sole shareholder of the Health Facility[ies] that are the subject of this Application;
2. I have* read 105 CMR 100.000, the Massachusetts Determination of Need Regulation;
3. I understand and agree to the expected and appropriate conduct of the Applicant pursuant to 105 CMR 100.800;
4. I have* read this application for Determination of Need including all exhibits and attachments, and ~~certify that~~** all of the information contained herein is accurate and true;
5. I have submitted the correct Filing Fee and understand it is nonrefundable pursuant to 105 CMR 100.405(B);
6. I have submitted the required copies of this application to the Determination of Need Program, and, as applicable, to all Parties of Record and other parties as required pursuant to 105 CMR 100.405(B);
7. I have caused, as required, notices of intent to be published and duplicate copies to be submitted to all Parties of Record, and all carriers or third-party administrators, public and commercial, for the payment of health care services with which the Applicant contracts, and with Medicare and Medicaid, as required by 105 CMR 100.405(C), et seq.;
8. I ~~have caused~~** proper notification and submissions to the Secretary of Environmental Affairs pursuant to 105 CMR 100.405(E) and 301 CMR 11.00; will be made if applicable
9. If subject to M.G.L. c. 6D, § 13 and 958 CMR 7.00, I have submitted such Notice of Material Change to the HPC - in accordance with 105 CMR 100.405(G);
10. Pursuant to 105 CMR 100.210(A)(3), I certify that both the Applicant and the Proposed Project are in material and substantial compliance and good standing with relevant federal, state, and local laws and regulations, as well as with all ~~previously issued~~ Notices of Determination of Need ~~and the terms and conditions attached therein~~***;
11. I have* read and understand the limitations on solicitation of funding from the general public prior to receiving a Notice of Determination of Need as established in 105 CMR 100.415;
12. I understand that, if Approved, the Applicant, as Holder of the DoN, shall become obligated to all Standard Conditions pursuant to 105 CMR 100.310, as well as any applicable Other Conditions as outlined within 105 CMR 100.000 or that otherwise become a part of the Final Action pursuant to 105 CMR 100.360;
13. Pursuant to 105 CMR 100.705(A), I certify that the Applicant has Sufficient Interest in the Site or facility; and
14. Pursuant to 105 CMR 100.705(A), I certify that the Proposed Project is authorized under applicable zoning by-laws or ordinances, whether or not a special permit is required; or,
    a. If the Proposed Project is not authorized under applicable zoning by-laws or ordinances, a variance has been received to permit such Proposed Project; or,
    b. The Proposed Project is exempt from zoning by-laws or ordinances.

Corporation:

Attach a copy of Articles of Organization/Incorporation, as amended

Michael K. Lauf — Signature: [signature] — Date: 2-22-2022

CEO for Corporation Name:

Alastair Bruce Johnston — Signature: [signature] — Date: 2-22-2022

Board Chair for Corporation Name:

*been informed of the contents of

**have been informed that

***issued in compliance with 105 CMR 100.00, the Massachusetts Determination of Need Regulation effective January 27, 2017 and amended December 28, 2018

This document is ready to print: ☐ Date/time Stamp: [ ]

APPENDIX 12

FILING FEE

CAPE COD HEALTHCARE

March 1, 2022

Lara Szent-Gyorgyi
Determination of Need Program
Department of Public Health
67 Forest Street
Marlborough, MA 01752

RE: Determination of Need Application #CCHC-22021416-HE

Dear Lara Szent-Gyorgyi:

Enclosed please find a check made payable to the Commonwealth of Massachusetts in the amount of $247,097.26 which is being provided as the required filing fee for the Determination of Need Application submitted on behalf of Cape Cod Healthcare, Inc. for a substantial capital expenditure by Cape Cod Hospital.

Please contact me with any questions regarding this fee, per my contact information included below.

Sincerely,

Michael Bachstein

Michael Bachstein

Vice President
27 Park Street
Hyannis, MA 02601
MBachstein@capecodhealth.org
508-862-5125

Cape Cod Healthcare, Inc	Supplier ID: 0000005417	Supplier: COMMONWEALTH OF MASSACHUSETTS DPH	Check Date: 24-Feb-22 [redacted]

INVOICE NUMBER	DATE	DESCRIPTION	GROSS AMOUNT	DISCOUNT	NET PAY
CCHCARDIOEXPANSION021522	Feb/15/2022	00565092	247,097.26	0.00	247,097.26

	GROSS AMOUNT	DISCOUNT	NET PAY
Totals:	$247,097.26	$0.00	$247,097.26

WARNING – THIS CHECK IS PROTECTED BY MULTIPLE SECURITY FEATURES – SEE BACK FOR DETAILS

CAPE COD HEALTHCARE
PO Box 1747 , Hyannis, MA 02601

53-7054
2113

[redacted]
SUPPLIER NO. 0000005417
DATE: 24-Feb-22

*****Two hundred forty-seven thousand ninety-seven and 26/100 Dollar*****

$247,097.26***

Pay To The Order Of

COMMONWEALTH OF MASSACHUSETTS DPH
DIVISION OF HEALTHCARE FACILITY LICENSURE
67 FOREST ST
MARLBORO, MA 01752

TD BANK NA
HYANNIS,MA

Authorized Signature

[redacted]