BARNSTABLE COUNTY
CAPE COD REGIONAL GOVERNMENT

LOWER CAPE COD

COMMUNITY HEALTH NEEDS ASSESSMENT

2024

Brewster, Chatham,
Harwich, Orleans

Prepared By:
Crescendo Consulting Group

crescendo

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LOWER CAPE COD

BARNSTABLE COUNTY
CAPE COD REGIONAL GOVERNMENT

2024 COMMUNITY HEALTH NEEDS ASSESSMENT RESULTS: Executive Summary

How did the Lower Cape Health Departments learn about the needs in their communities?

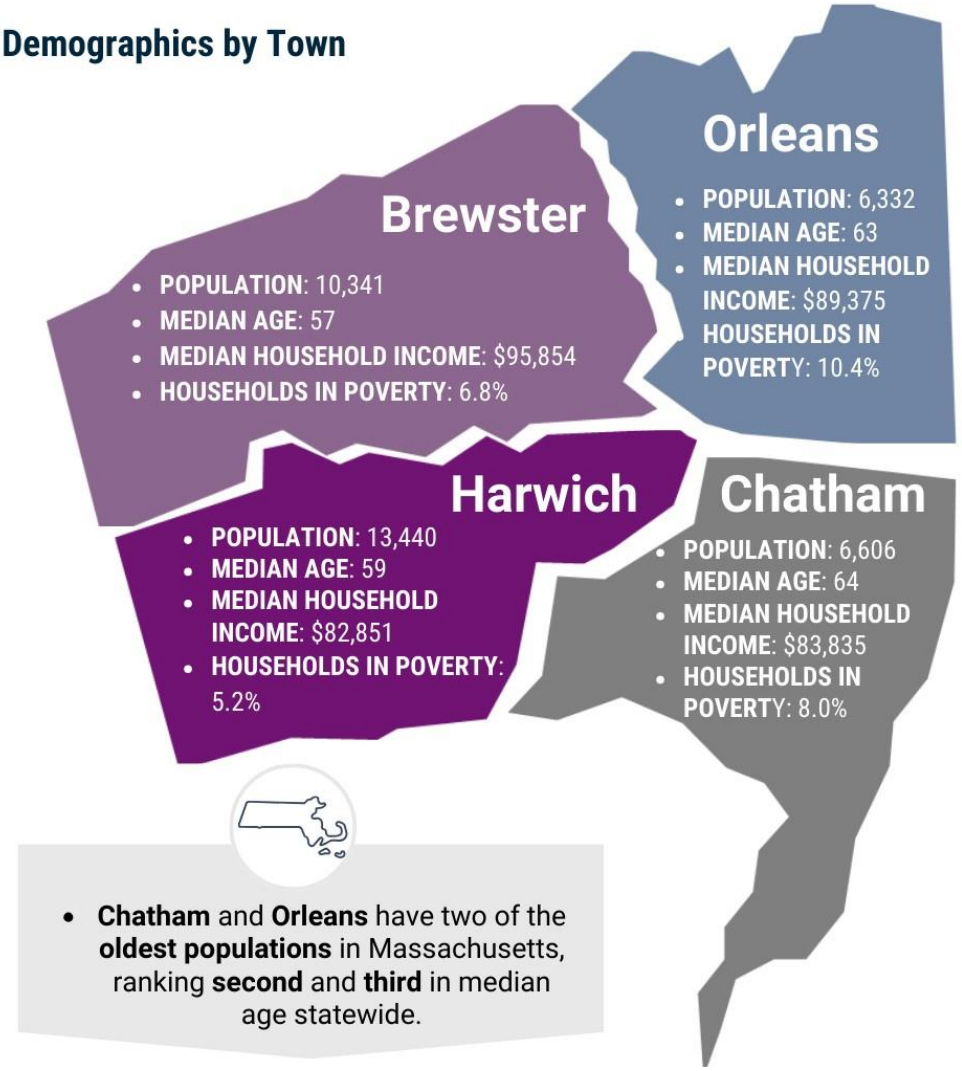
In 2024, the health departments of Brewster, Chatham, Harwich, and Orleans partnered with Crescendo Consulting Group, funded by the Public Health Excellence Grant, to conduct a comprehensive community health needs assessment.

This assessment identified gaps in services and resources related to the social determinants of health, including healthcare access, economic stability, and housing, helping to provide a roadmap for addressing the region's health priorities.

An environmental analysis of the Lower Cape towns was conducted using research collected from local and national data banks. Community input was gathered through in-depth personal interviews with stakeholders throughout the towns and Barnstable County, focus group discussions, and a community survey.

Those participating in the surveys, interviews, and focus groups included community members, representatives from service providers, as well as town and county leadership.

Lower Cape Demographics by Town



- **Chatham** and **Orleans** have two of the **oldest populations** in Massachusetts, ranking **second** and **third** in median age statewide.

What needs were identified in the Lower Cape community during this assessment?

The Lower Cape Cod Community Health Needs Assessment identified several key challenges impacting the region. These include the needs of vulnerable populations, particularly **older adults** facing social isolation, members of **minority groups**, and those **struggling with high living costs**.

Rising housing, healthcare, and daily living expenses contribute to **financial strain**, directly affecting both **physical and mental health**.

Stigma surrounding **substance use**, **food insecurity**, and **mental health** treatment contribute to individuals avoiding seeking help.

Additionally, **information gaps** and a **lack of coordination** between service providers hinder residents' ability to access essential resources.

The assessment also highlighted the critical need for better access to **primary care**, affordable **housing**, **food security**, **transportation** options, and expanded **behavioral health** services.

Addressing these needs requires stronger collaboration among local health departments and community organizations, alongside community education efforts, to ensure residents are aware of existing services and resources that are available to them.

LOWER CAPE IDENTIFIED COMMUNITY NEEDS

COMMUNITY EDUCATION

- Increase presence of **local health departments**
- Learn about **existing resources**
- **Reduce stigma** about community issues

SUBSTANCE USE

- Substance use **early intervention** programs
- Substance use disorder **treatment** and **recovery** options

MENTAL HEALTH

- Enhance mental health **crisis** services
- Increase options for mental health **counseling** (youth and adults)

COMMUNITY WELLBEING

- Additional **community health** programs
- Address issues with **senior isolation**

PREVENTIVE HEALTHCARE

- Address **primary care** gaps
- **Senior health care**, including at home care
- **Transportation** for medical appointments

COMMUNITY INFRASTRUCTURE

- Affordable housing
- Available housing
- Recreation
- Food access
- Childcare
- Transportation (general)
- Livable wage jobs

What happens with this information?

The identified needs from the community health needs assessment were reviewed with the Health Directors from Brewster, Chatham, Harwich, and Orleans and a representative from the Barnstable County Department of Health and Environment.

Those needs were prioritized based on which items fall within the local health departments' ability to address - considering available resources, collaboration with community partners, and other key factors.

A list of sample strategies and recommendations to address the high level needs is contained within the report. Moving forward, it is crucial to leverage the insights from this assessment to implement targeted strategies, ensuring a healthier and more resilient Lower Cape community.

Introduction

Cape Cod is best known as an idyllic beachside peninsula in Massachusetts. Encompassed by Barnstable County, Cape Cod ("the Cape") is composed of 15 towns, divided into 4 regions, each with its own distinct flair.

The Lower Cape Cod towns of Brewster, Chatham, Harwich, and Orleans are renowned for their scenic beauty and outdoor activities, contributing to a serene environment that attracts both residents and visitors. Despite these advantages, these communities face significant challenges impacting the health and well-being of their populations.

Social determinants of health, including economic stability, education, social and community context, healthcare access, and the neighborhood environment, profoundly influence health outcomes in these towns.

The seasonal nature of employment and high living costs hinder economic stability, while limited housing options exacerbate these issues. Cape Cod, in general, has a limited footprint, only encompassing 339 square miles in total. This small geographic area creates intense competition for space when it comes to housing. The housing that does exist – and is available – is financially out of reach for many.

Healthcare availability is a critical concern, particularly for the aging population. There is a notable shortage of primary care physicians, compounded by inadequate housing for healthcare professionals.

Mental health and substance use treatment services are also insufficient, highlighting a need for more comprehensive care options. Additionally, community education and awareness about available services are crucial for improving health outcomes and fostering social cohesion.

Community providers, social service organizations and the public health departments working in the Lower Cape are actively seeking to address these issues, striving to enhance community health through various initiatives. Collaboration among local organizations and enhanced community engagement is essential for creating a resilient and healthy environment.

While enacting change is undeniably challenging, the spirit of Lower Cape Cod is defined by its dedicated residents and organizations, who are passionate about their community and are committed to creating a more vibrant and healthier future for everyone.

Community Health Needs Assessment

Between April 2024 and July 2024, Crescendo Consulting Group ("Crescendo") worked in collaboration with the Barnstable County Department of Health and Environment and the Health Departments of Brewster, Chatham, Harwich, and Orleans ("the Lower Cape") to conduct a Community Health Needs Assessment. A combination of quantitative and qualitative research methods was used to evaluate perspectives and opinions of community stakeholders.

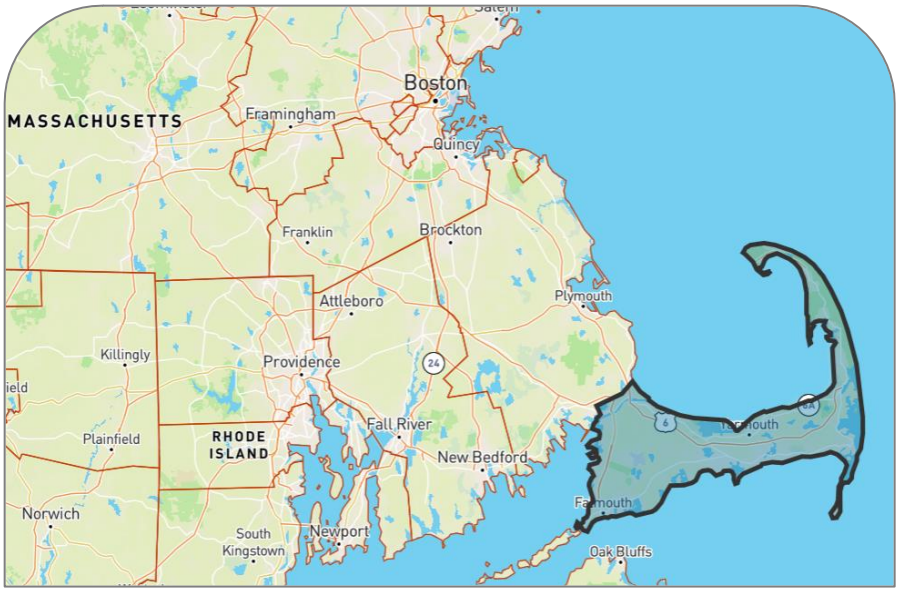
This Community Health Needs Assessment, supported by the Massachusetts State Action for Public Health Excellence (PHE) Grant, provides a critical process that examines prevailing issues and conditions related to health and basic needs, including the social determinants of health,

while identifying resources and opportunities to meet specific community needs.

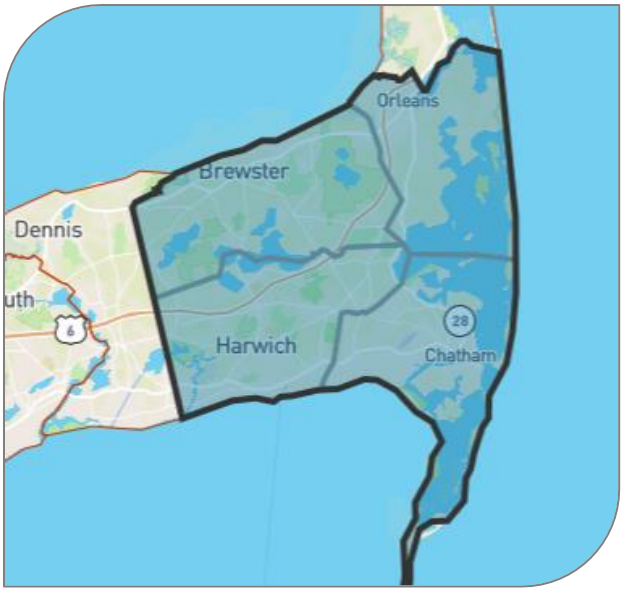
A Community Health Needs Assessment:

- Establishes a profile of a community, noting both needs as well as community resources.
- Determines the needs in a community that can be addressed and the population that is most impacted by the need.
- Includes both quantitative and qualitative data to assist in identifying needs in the community.
- Assists agencies in determining the outcomes and strategic planning they strive to achieve based on the identification of needs at the individual, family, community, and agency levels.

BARNSTABLE COUNTY, MASSACHUSETTS



TOWNS OF LOWER CAPE COD



About the County and Local Health Departments

The Leadership Group of the 2024 Lower Cape Cod Community Health Needs Assessment consisted of a representative from the Barnstable County Department of Health and Environment and Health Agents from the towns of Brewster, Chatham, Harwich and Orleans.

Information about the involved entities can be found below.

Barnstable County Department of Health and Environment

ABOUT

"The Department of Health and Environment was established in 1926 to provide regional efficiencies throughout the 15 towns of Barnstable County, while supporting the autonomy of local boards of health. The Department provides a diversity of services that promote public health and environmental protection, from emergency planning, to monitoring of water, land, and air, to disease prevention, inspectional services, COVID-19 pandemic response, and even the practical application of providing loans for septic system repair and replacement. The physical and mental well-being of Barn stable County's residents, alongside protection of our sensitive ecosystems, are our top priorities."

Brewster Health Department

MISSION AND RESPONSIBILITIES

"The Board of Health is responsible for the protection and promotion of the public's health, control of disease, protection of the environment, and promotion of sanitary living conditions. The Board is represented in its daily business activities by a full-time Health Director and Health Department staff. Under Massachusetts General Law and state and local regulations and policies, the Board of Health has the authority to adopt health regulations and address concerns about issues that affect the public's health. Board of Health members are elected."

Chatham Health Division

MISSION STATEMENT

"The Chatham Health Division and Board of Health enforce Massachusetts General Laws, State Environmental and Sanitary Codes, and Town of Chatham Bylaws and Regulations. The Health Division has the primary responsibility of protecting and improving the public health and well-being of the Chatham community. The enforcement and inspection activities ensure a safe and healthy environment in which to live and work."

Harwich Department of Health

MISSION STATEMENT AND RESPONSIBILITIES

"The Harwich Department of Health and the Harwich Board of Health take their authority from the Massachusetts General Laws (M.G.L.), the code of Massachusetts Regulations (C.M.R.) and the Town of Harwich By-laws, and Regulations. Our primary goal is the protection and improvement of the public health for the people of Harwich.

The Health Department is a professionally staffed department with a Director, Administrative Assistant and health inspectors. It handles the day-to-day operations and executes the various health laws and regulations."

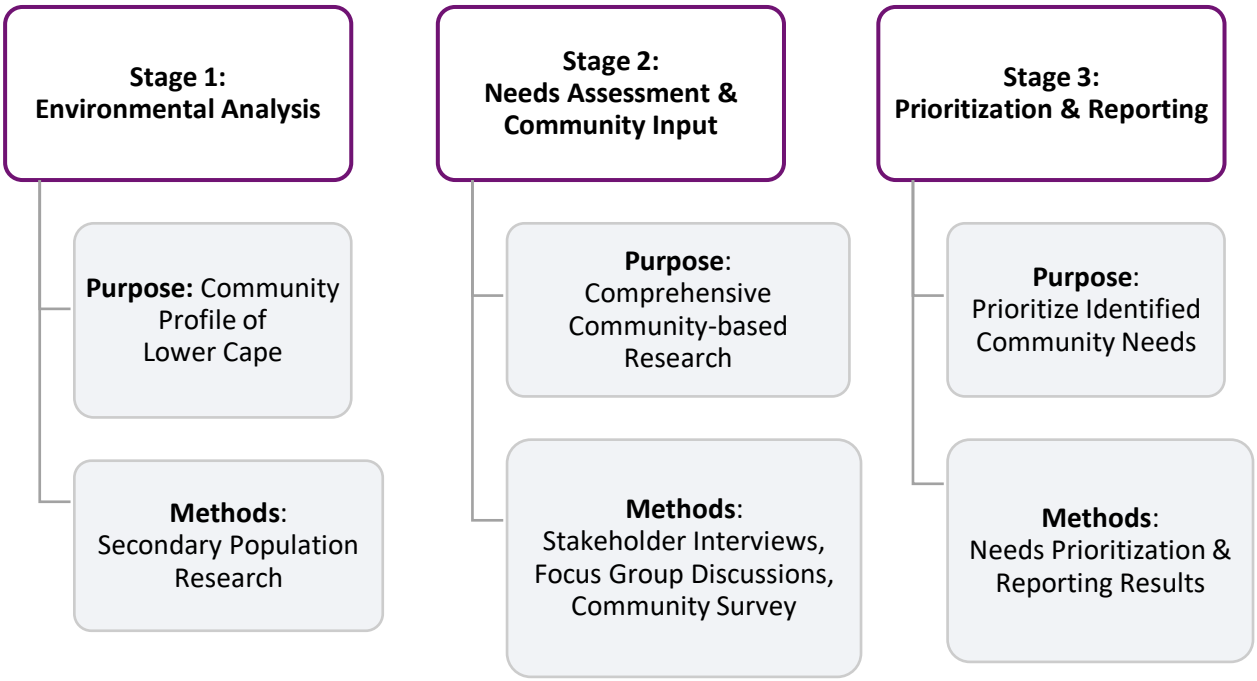
Orleans Health Department

ABOUT

"The Health Department is responsible for enforcing state and local public health regulations relating to food service establishments, septic systems, public and semi-public swimming pools, and minimum standards for housing. The department contracts with outside providers of public health nursing services."

Methodology

Results of the major research activities employed in this Community Health Needs Assessment include secondary data research, community surveying, conducting primary qualitative interviews with stakeholders and in focus groups, and conducting a needs prioritization process, all of which are explained in more detail below.



Secondary Data Analysis provided a critical insight into demographics of Barnstable County and the Lower Cape towns, social determinants of health, and behavioral health-related measures, among many others.

Qualitative Research included 19 one-on-one stakeholder interviews and six focus groups, speaking with a total of 60 participants.

A **Community Survey** was conducted via SurveyMonkey to evaluate and address healthcare, housing, food insecurity and other needs, gaps, and resources in the community. The survey included high-level themes that emerged from secondary data analysis, qualitative research, and other research activities. Over 395 responses were collected and 384 were analyzed.

An **Access Audit** provided insights into access to care barriers and challenges experienced by Lower Cape residents when accessing services and resources.

The **Needs Prioritization Process** was held virtually with the project leadership from Barnstable County and representatives from each town's Health Department. Crescendo reviewed the identified needs and discussed prioritized needs based on capacity and degree of control.

Secondary Data: Environmental Analysis

Secondary data provides an essential framework from which to better understand the fabric of the community. This analysis highlights sociodemographic factors, social determinants of health, behavioral health risk factors, and other key indicators to further guide the development of effective strategies to meet evolving needs.

The following data was primarily gathered from the United States Census Bureau 2018-2022 American Community Survey (ACS) Five-year Estimates, the CDC Behavioral Risk Factor Surveillance System, and the Massachusetts Department of Public Health, among others.

For additional, more in-depth data, please see the data tables in the appendix. The following pages show key findings and high-level summary data.

Data tables supporting the following exhibits can be found in Appendix A.

American Community Survey: *Five-year Estimates*

There is an intentional purpose in using five-year data estimates compared to one-year data estimates.

Five-year estimates are derived from data samples gathered over several subsequent years and provide a more accurate estimate of measures, especially among numerically smaller high-risk populations or subgroups, compared to one-year estimates, which are based on more limited samples with greater variance.

Source: https://www.census.gov/data/developers/data-sets/acs-5year.html

Barnstable County, Massachusetts

Overview

Total Households
99,969

Population by Age

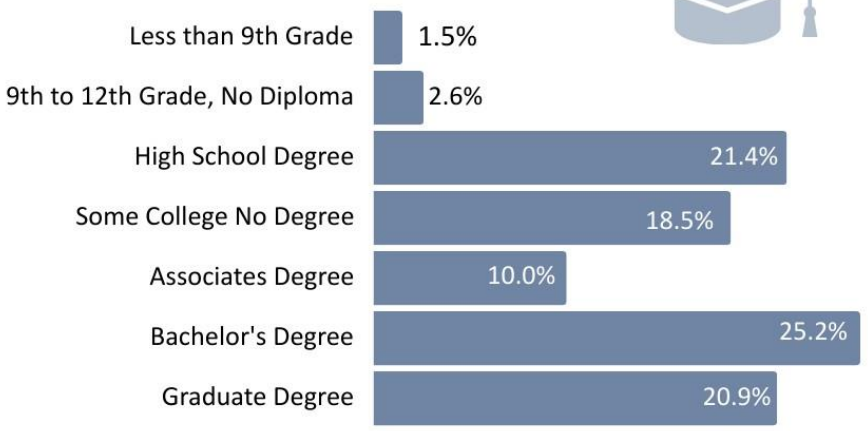
Age Under 18	Age 18-64	Age 65+	Median Age
14.5%	**53.8%**	**31.6%**	**54.5**

87.9% White

3.5% Hispanic / Latino

10.5% Speak a Language Other than English at Home

Education



Nearly **60%** of Barnstable County residents have **earned a degree.**

Population Change

2010		2022		2031
215,888	**+6.3%**	**229,436**	**+5.8%**	**246,648**

Median Household Income
$90,447

Households Below Poverty Level
10.8%

Population Living with a Disability
13.6%

Veterans
8.0%

Employment

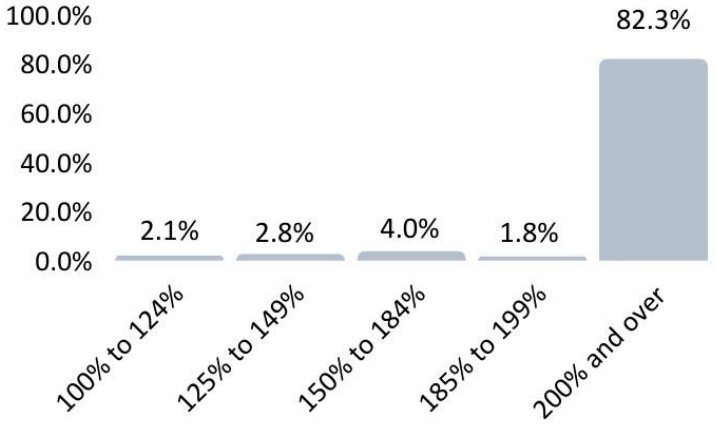
Top Industries

Management	**11.4%**
Sales	**10.2%**
Office and Administrative Support	**9.2%**
Construction and Extraction	**7.3%**

Unemployment Rate	Average Commute Time
4.5%	**25 minutes**

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Income to Poverty Ratio



Brewster, Massachusetts

Overview

Total Households
4,491

Population by Age

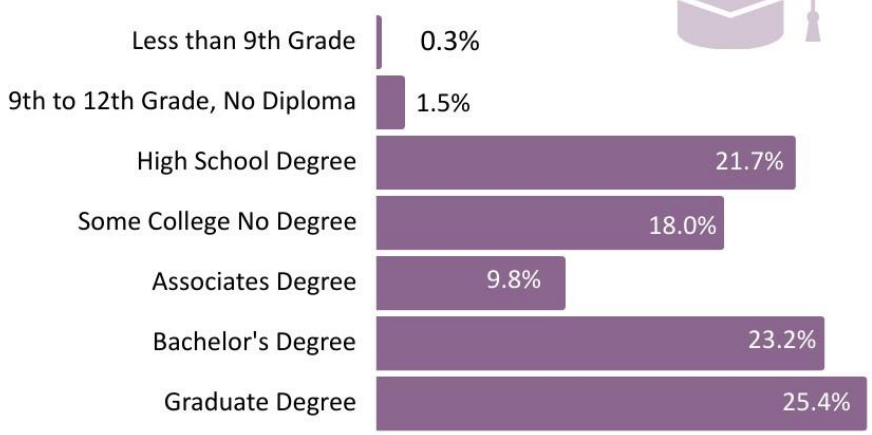
Age Under 18	Age 18-64	Age 65+	Median Age
14.4%	**50.6%**	**36.1%**	**57**

94.9% White

2.8% Hispanic / Latino

6.3% Speak a Language Other than English at Home

Education



Nearly **60%** of Brewster residents have **earned a degree.**

Median Household Income
$95,845

Households Below Poverty Level
6.8%

Population Living with a Disability
12.0%

Veterans
6.1%

Population Change

2010		2022		2031
9,830	**+6.7%**	**10,341**	**+6.5%**	**11,005**

Employment

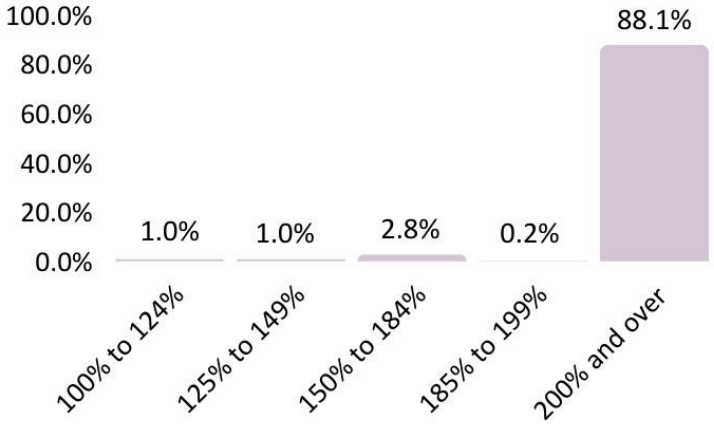
Top Industries

Management	**17.0%**
Office and Administrative Support	**9.8%**
Sales	**8.9%**
Education, Training, and Library	**8.2%**

Unemployment Rate
8.1%

Average Commute Time
23 minutes

Income to Poverty Ratio



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Chatham, Massachusetts

Overview

Total Households
3,289

Population by Age

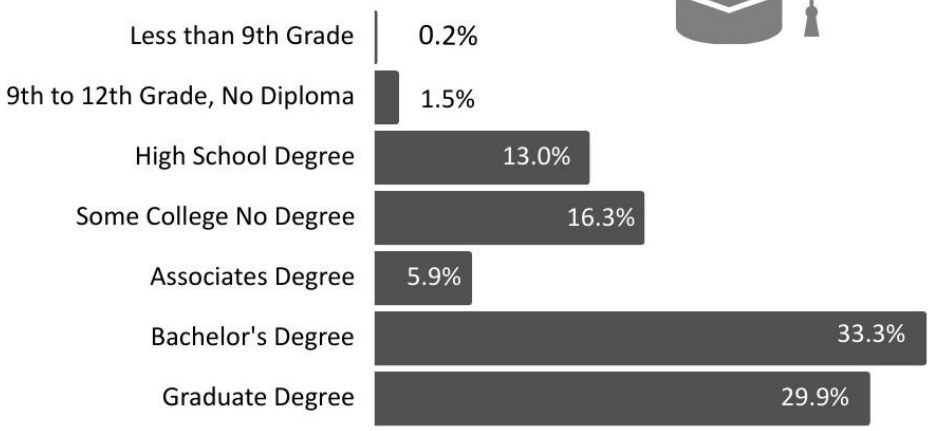
Age Under 18	Age 18-64	Age 65+	Median Age
9.7%	**41.5%**	**48.8%**	**64**

92.5% White

1.5% Hispanic / Latino

2.5% Speak a Language Other than English at Home

Education



Nearly **70%** of Chatham residents have **earned a degree.**

Population Change

2010	+7.9%	2022	-1.9%	2031
6,124		**6,606**		**6,477**

Median Household Income
$83,835

Households Below Poverty Level
8.0%

Population Living with a Disability
16.5%

Veterans
10.2%

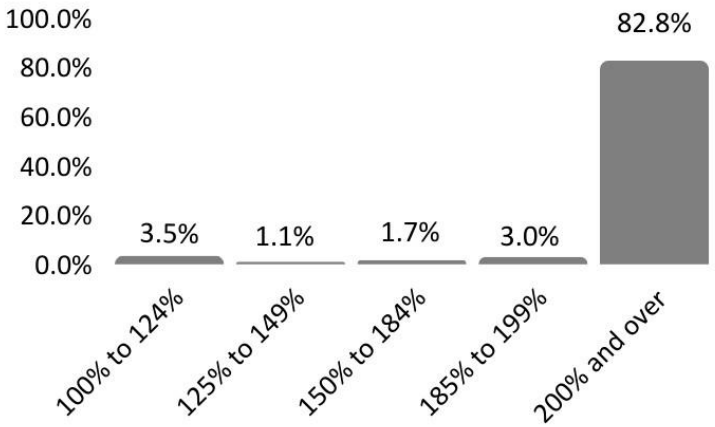
Employment

Top Industries

Management	**17.5%**
Sales	**10.0%**
Office and Administrative Support	**8.8%**
Business and Finance	**7.7%**

Unemployment Rate	Average Commute Time
5.3%	**23 minutes**

Income to Poverty Ratio



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Harwich, Massachusetts

Overview

Total Households
6,150

Population by Age

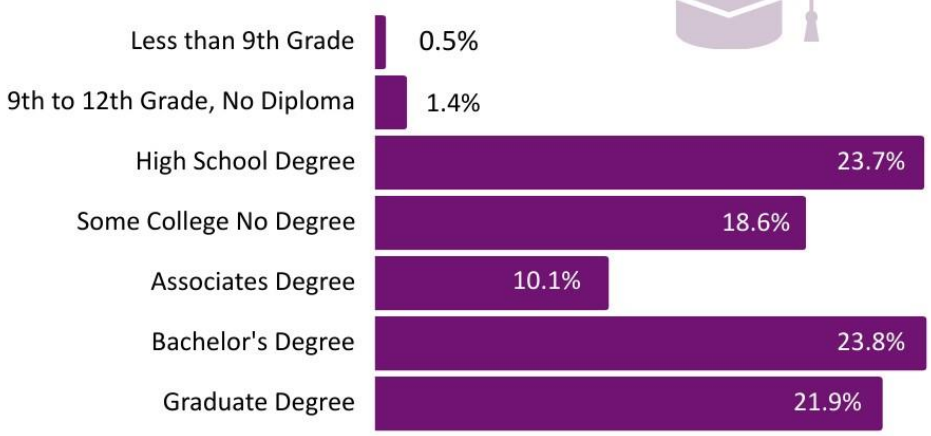
Age Under 18	Age 18-64	Age 65+	Median Age
12.5%	**52.2%**	**35.3%**	**59**

93.2% White

1.9% Hispanic / Latino

6.8% Speak a Language Other than English at Home

Education



Nearly **56%** of Harwich residents have **earned a degree.**

Population Change

2010		2022		2031
12,233	**+9.9%**	**13,440**	**+7.4%**	**14,428**

Median Household Income
$82,851

Households Below Poverty Level
5.2%

Population Living with a Disability
12.0%

Veterans
7.4%

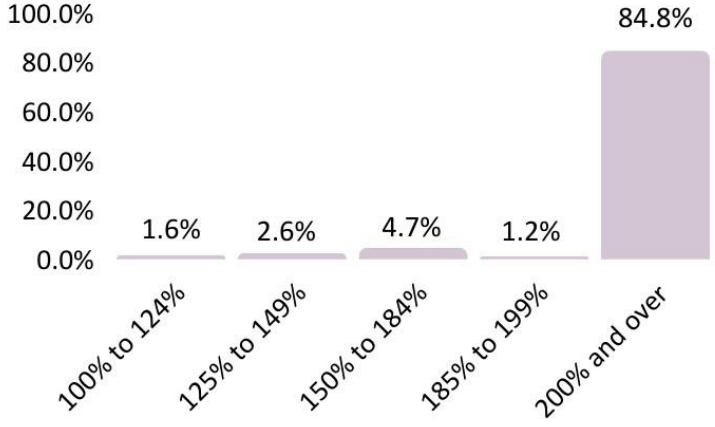
Employment

Top Industries

Sales	**11.5%**
Management	**9.6%**
Construction and Extraction	**8.2%**
Education, Training, and Library	**7.6%**

Unemployment Rate	Average Commute Time
5.8%	**21 minutes**

Income to Poverty Ratio



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Orleans, Massachusetts

Overview

Total Households
3,009

Population by Age

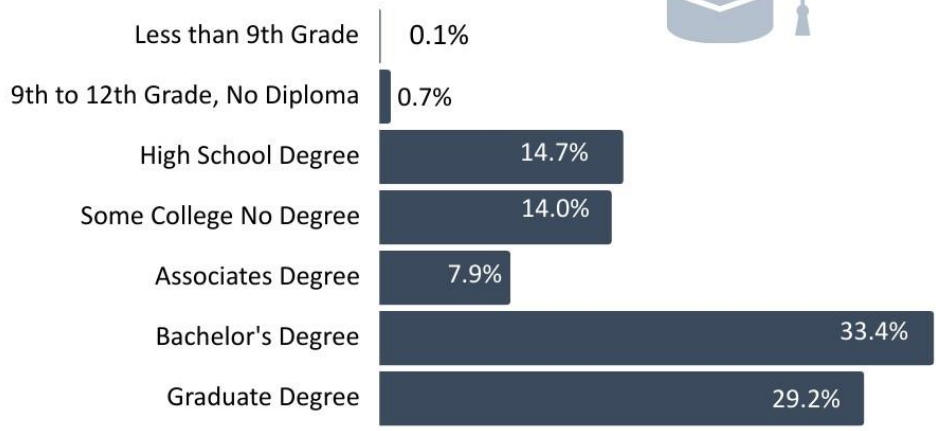
Age Under 18	Age 18-64	Age 65+	Median Age
12.9%	**40.4%**	**46.7%**	**63**

97.3% White

1.6% Hispanic / Latino

4.5% Speak a Language Other than English at Home

Education



Approximately **70%** of Orleans residents have **earned a degree.**

Population Change

2010	+7.3%	2022	+0.8%	2031
5,902		**6,332**		**6,384**

Median Household Income
$89,375

Households Below Poverty Level
10.4%

Population Living with a Disability
14.2%

Veterans
6.9%

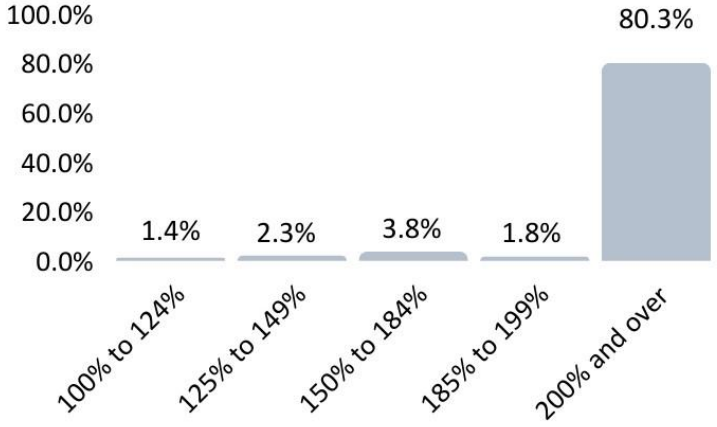
Employment

Top Industries

Management	**12.5%**
Health Diagnosis and Treating Practitioners	**9.0%**
Education, Training, and Library	**8.5%**
Arts, Design, Entertainment, Sports, & Media	**8.7%**

Unemployment Rate	Average Commute Time
2.8%	**31 minutes**

Income to Poverty Ratio



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

The Social Vulnerability Index

The Social Vulnerability Index (SVI) was developed by the U.S. Centers for Disease Control and Prevention as a metric for analyzing population data to identify vulnerable populations. The SVI may be used to rank overall population well-being and mobility relative to county and state QA data. The SVI can also be used to determine the most vulnerable populations during disaster preparedness and public health emergencies, including pandemics.[1]

For example, during a public health emergency, such as a pandemic, the SVI score of a particular region can be instrumental in guiding response efforts. Using SVI data, targeted interventions can be implemented, including providing multilingual public health messaging, offering financial assistance to vulnerable households, and deploying mobile units to isolated areas with high-risk individuals, such as the elderly. Tailoring responses through the lens of SVI allows specific needs of at-risk communities to be met, fosters resilience, and reduces health disparities.

The SVI measures are grouped into four major categories:

SOCIOECONOMIC STATUS	Population Living in Poverty Unemployed Population Population with No High School Diploma
HOUSEHOLD COMPOSITION & PEOPLE LIVING WITH A DISABILITY	Age 65 & Over Age Below 18 Population Living With a Disability Single-Parent Households
MINORITY POPULATION & LANGUAGE	Minority Population Population Who Speaks English Less than Very Well
HOUSING & TRANSPORTATION	Multi-Unit Housing Structures Mobile Homes Crowding Population With No Vehicle

[1] Agency for Toxic Substances & Disease Registry, CDC/ATSDR Social Vulnerability Index.

EXHIBIT 1 SOCIAL VULNERABILITY INDEX

		Brewster	Chatham	Harwich	Orleans	Barnstable County
Socioeconomic Status	Population Below Poverty Level	6.8%	8.0%	5.2%	10.4%	7.0%
	Unemployment Rate	8.1%	4.9%	6.1%	2.9%	4.5%
	Median Income	$95,845	$83,835	$82,851	$89,375	$90,447
	No High School Diploma	2.2%	1.7%	1.7%	0.8%	4.1%
	Uninsured Population	2.3%	0.6%	2.5%	0.4%	3.0%
Household Composition & Disability	Under Age 18	14.2%	9.7%	12.5%	12.9%	14.5%
	Age 65+	36.1%	48.8%	35.3%	46.7%	31.6%
	Living with a Disability	12.0%	16.5%	12.0%	14.2%	13.6%
Minority Status & Language	Minority Population	6.3%	8.1%	7.2%	3.3%	13.5%
	Limited or No English Proficiency	1.4%	0.1%	0.9%	0.6%	3.6%
Household Type & Transportation	Multi-Unit Housing Structures[2]	14.6%	8.4%	6.8%	13.6%	12.3%
	Mobile Homes	0.4%	0.3%	0.1%	0.0%	0.6%
	No Vehicle	6.3%	4.3%	3.9%	5.2%	5.0%
	Overcrowded Housing Units	2.4%	2.2%	0.1%	1.2%	1.3%
	Group Quarters	2.3%	2.6%	1.5%	1.5%	1.2%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Barnstable County

2022 Statewide Overall SVI Score:

0.0

Possible scores range from 0 (lowest vulnerability) to 1 (highest vulnerability).

For more information, visit:
CDC/ATSDR Social Vulnerability

A score of 0.0 indicates a low level of vulnerability.

[2] Multi-Unit Housing Structures is defined here as the percentage of housing units that are in buildings containing 2 or more housing units.

EXHIBIT 2: SVI MAP OF LOWER CAPE COD, BY CENSUS TRACTS

Level of Vulnerability			
Low	Low-Medium	Medium-High	High

Source: CDC/ASTDR Social Vulnerability Index

While Barnstable County has a low SVI score compared to the state of Massachusetts, the CDC/ATSDR Social Vulnerability Index County Map drills down into the social vulnerability of the Lower Cape community at the census tract level, depicting areas where vulnerability is higher compared to others. In the Lower Cape towns, there are pockets of low-medium areas of vulnerability surrounded by lower vulnerability census tracts.

The varying degree of vulnerability at the census tract level highlights that there is not uniformity across the four towns of the Lower Cape, or within each town individually.

Social Determinants of Health Key Findings

In addition to collected key demographic secondary data, research in this Community Health Needs Assessment looks at the Social Determinants of Health (SDoH). Social Determinants of Health include a wide range of factors, including, but not limited to, income, education, job security, housing, basic amenities, the environment, social inclusion and non-discrimination, and access to quality, affordable health care. These conditions "contribute to wide health disparities and inequities."[3]

The following secondary research sections includes key findings related to Social Determinants of Health in Barnstable County and Lower Cape Cod.

Social and Community Context

The elderly are at an increased risk of social isolation due to a lack of social support systems, issues with mobility and transportation, and untreated mental health issues. In communities with high percentages of elderly residents, the amount of social isolation and loneliness also increases.

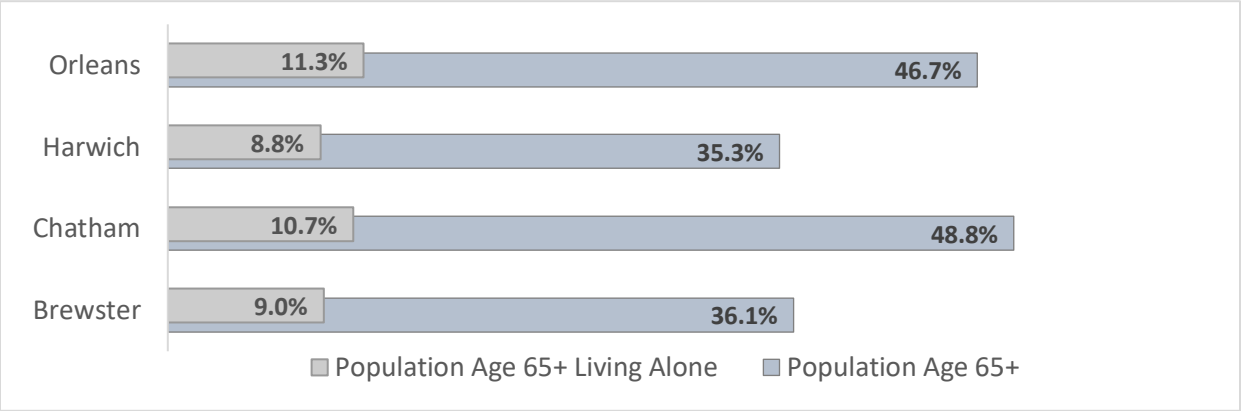
Focusing resources and services on efforts targeting social isolation and loneliness is crucial, as these issues can lead to poor mental and physical health. Addressing ageism and promoting intergenerational relationships also contributes to the overall health and well-being of elderly individuals and enhances community resilience.[4]

The Lower Cape has a high percentage of residents over the age of 65. In Chatham and Orleans, nearly 50% of the population are over the age of 65 (48.8% and 46.7%, respectively) compared to about a third of the residents in Brewster and Harwich (36.1% and 35.3%, respectively).

[3] Healthy People 2030: Social Determinants of Health. https://health.gov/healthypeople/objectives-and-data/social-determinants-health

[4] Centers for Disease Control and Prevention (2021.) Social Determinants of Health: Know What Affects Health. https://www.cdc.gov/socialdeterminants/index.htm

EXHIBIT 3: POPULATION OVER AGE 65 AND POPULATION OVER AGE 65 LIVING ALONE IN LOWER CAPE



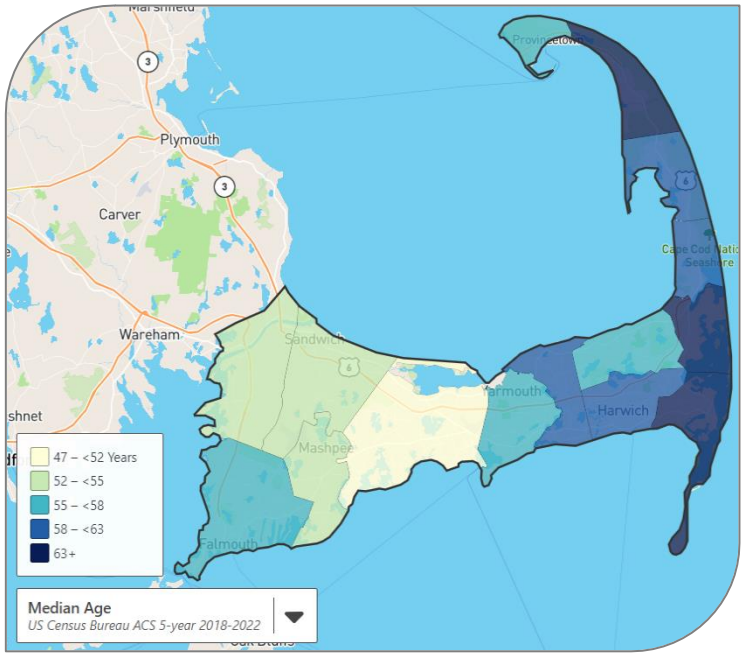
Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates | Massachusetts Environmental Public Health Tracking Community Profile for Barnstable, community-profile (mass.gov)

EXHIBIT 4: MEDIAN AGE IN BARNSTABLE COUNTY

The median age in Chatham and Orleans is 64 and 63, respectively, making them the towns with the second and third highest median age in Massachusetts. Harwich's median age is 59, placing it 14th highest in the state. Brewster's median age is 57, the 25th highest of the 351 cities and towns in the state.

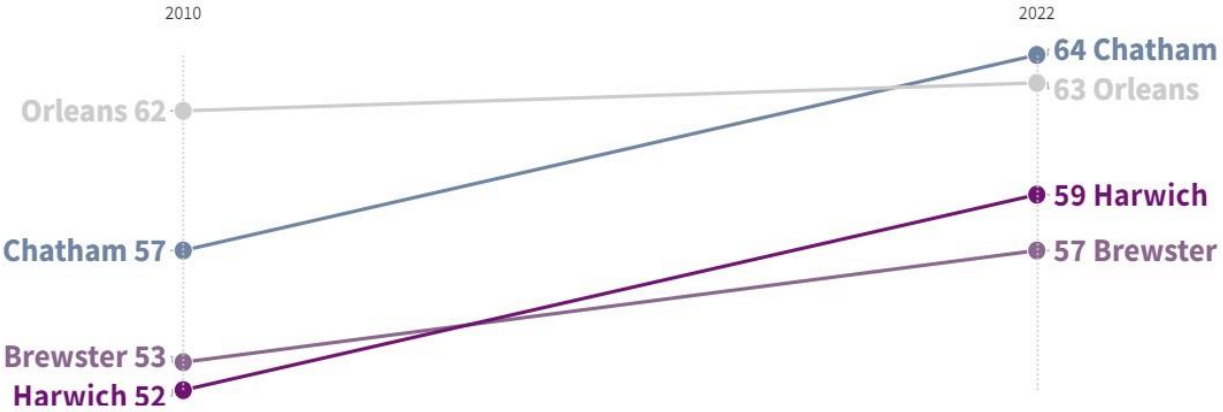
The overall median age for the state of Massachusetts is 40. The median age in Barnstable County is 54.5.

Since 2010, the median age of all Lower Cape towns increased.



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 5: MEDIAN AGE IN LOWER CAPE, 2010-2022



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

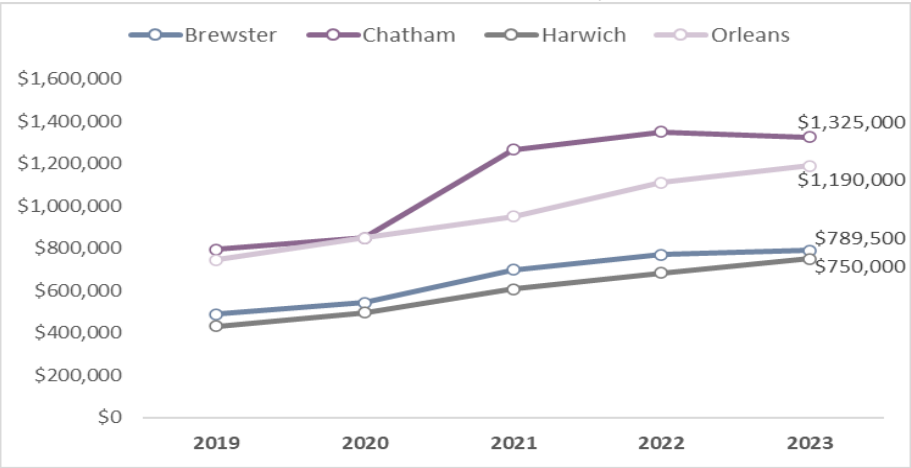
Neighborhood and Built Environment

The neighborhoods people live in have a major impact on their health and well-being. The physical environment includes housing and transportation, parks and playgrounds, and the chances for recreational opportunities.[5] When housing is unaffordable, scarce, or poorly maintained, it undermines community cohesion, contributing to increased stress, instability, and isolation, exacerbating health disparities and ultimately harming overall health and quality of life.[6]

Housing

Difficulties with housing can serve as a primary source of stress and can be a direct barrier to the well-being for members of community. In Lower Cape Cod, housing is difficult to find. Housing that is affordable is even more difficult. In terms of the single family home real estate market, the housing trend was the same in each of the four Lower Cape towns during the COVID-19 pandemic. There was a spike in the number of closed home sales in 2020 and then a decrease, reflecting a decrease in the housing stock. At the same time, the median single family home price has been increasing, reaching over $1.0 million in Chatham and Orleans. As the inventory of available homes decreases, the sales prices increase.

EXHIBIT 6: MEDIAN SINGLE-FAMILY HOME COSTS, BY TOWN



Source: Massachusetts Association of Realtors, Market Data, Single-Family Data

National Low Income Housing Coalition
2024

Median Household Income
$90,447

2 Bedroom Fair Market Rent
$2,082

Annual Income Needed to Afford 2 Bedroom FMR
$83,280

In Barnstable County, Massachusetts, the Fair Market Rent (FMR) for a two-bedroom apartment is $2,082. In order to afford this level of rent and utilities - without paying more than 30% of income on housing - a household must earn **$83,280** annually. Assuming a 40-hour work week, 52 weeks per year, this level of income translates into:

$40.04
Hourly Housing Wage

2.7
Number of full-time jobs at minimum wage to afford a 2-bedroom rental (at FMR)

Source: NLIHC, Out of Reach 2024

[5] Kaiser Family Foundation, Beyond Health Care: The Role of Social Determinants in Promoting Health & Health Equity, 2018
[6] Healthy People 2030: Social Determinants of Health. https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/neighborhood-and-built-environment

Health and Health Care

Equitable, affordable, and available access to needed healthcare services is a critical component of ensuring positive outcomes for a population. Unfortunately, many people do not receive the physical or behavioral healthcare that they need, whether due to unaffordability or unavailability.

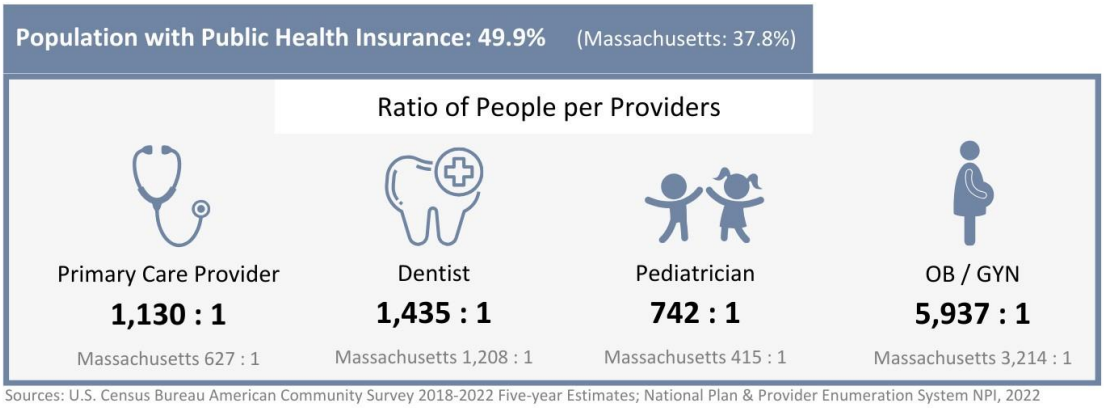
Availability and access to healthcare can be impacted by a lack of providers in the area, limited transportation options to get to appointments, stigma, or insurance barriers.

Physical Health

The consequences of not having a primary care physician or medical home include a lapse in routine screenings and treatments and health status dangerously deteriorating.

In Barnstable County, there's a high ratio of people per healthcare providers, including primary care physicians (PCPs), dentists, pediatricians, and OB/GYNs, indicating a shortage of providers based on the number of people. To put this in perspective, the ratio of people per PCP in Barnstable County is nearly double the ratio of people per PCP in the state of Massachusetts.

Nearly 9% of adults in the county report that their physical health was 'not good' for 14 or more days in any given month and more than 25% of the population has at least one of the following chronic health conditions: High cholesterol, obesity, high blood pressure, and arthritis.[7]



Sources: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates; National Plan & Provider Enumeration System NPI, 2022

The lack of providers is not the only barrier to healthcare. In each of the Lower Cape towns, a high percentage of residents have public insurance, hovering at or above the 50% level. This reflects the high percentage of elderly residents in the area who are eligible for Medicare coverage. Public insurance – Medicare and Medicaid (MassHealth in Massachusetts) – can

[7] Centers for Disease Control and Prevention | Division of Population Health, PLACES: Local Data for Better Health, https://www.cdc.gov/PLACES

create a barrier to care for some patients, with some providers unable or unwilling to accept the insurance.

Behavioral Health

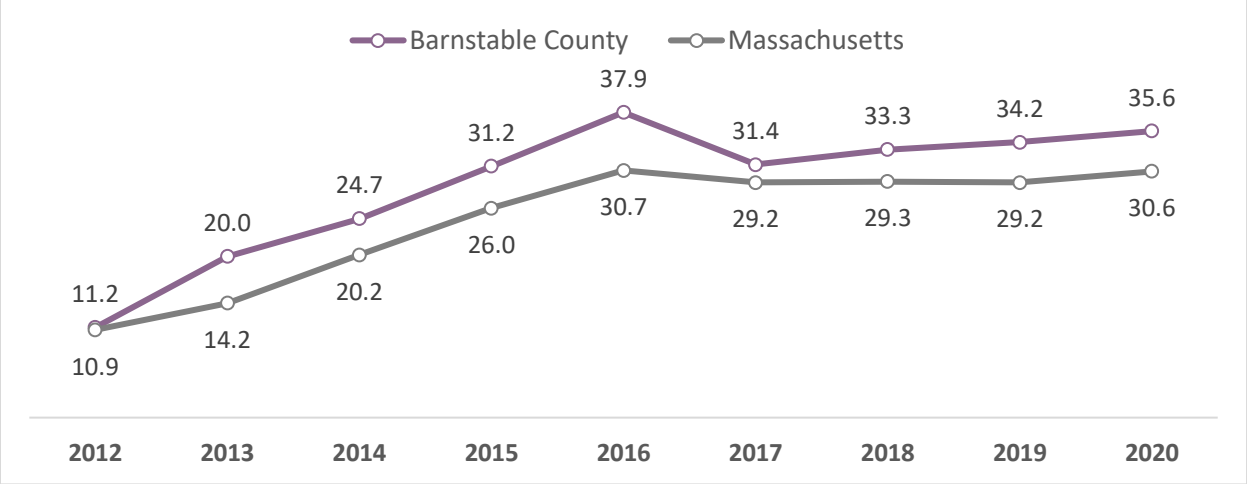
Substance Use. In a Fall 2020 study looking at the impacts of the pandemic on communities in Massachusetts, more than a third of Barnstable County adults (35%) reported increased substance use since the beginning of the pandemic. The same study found that 61% of adults in Barnstable County reported drinking alcohol in the last month, greater than the 48% reported by the state overall.[8]

Barnstable County additionally has a higher estimated mortality rate related to substance use compared to Massachusetts. The mortality rate has consistently been higher than the state since at least 2012.

*Barnstable, Chatham, Harwich and Orleans each had **at least 1 opioid-related overdose death** in 2022 and 2023.[9]*

*Together, the 4 towns had **58** suspected **opioid-related EMS Incidents** in 2022.[10]*

EXHIBIT 7: ESTIMATED OPIOID-RELATED OVERDOSE MORTALITY RATE, 2012-2020[11]



Source: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, Current Opioid Statistics, current data as of November 2021

Mental Health. Between 2019 and 2020, the number of suicides in Barnstable County rose by 48%, a rate higher than any other county in Massachusetts.[12] In the following year, nearly 16% of Barnstable County residents reported that their mental health was 'not good' for 14 or more

[8] Massachusetts Department of Public Health (2022). COVID-19 Community Impact Survey.
[9] Massachusetts Department of Public Health, Number of Opioid-Related Overdose Deaths, All intents by City/Town, 6/2024
[10] Massachusetts Department of Public Health, MA Opioid-Related EMS Incidents 2018-2023, Posted: June 2024.
[11] Rates are crude rates per 100,000; calculated based on population estimates reported by US Census Bureau, American Community Survey 5-Year data sets (2011-2015 and 2016-2020)
[12] Massachusetts Department of Public Health, Injury Surveillance Program (2021). COVID-19 Data Brief 2020: Suicides, Suicide Attempts, and Suicidal Ideation in Massachusetts. download (mass.gov)

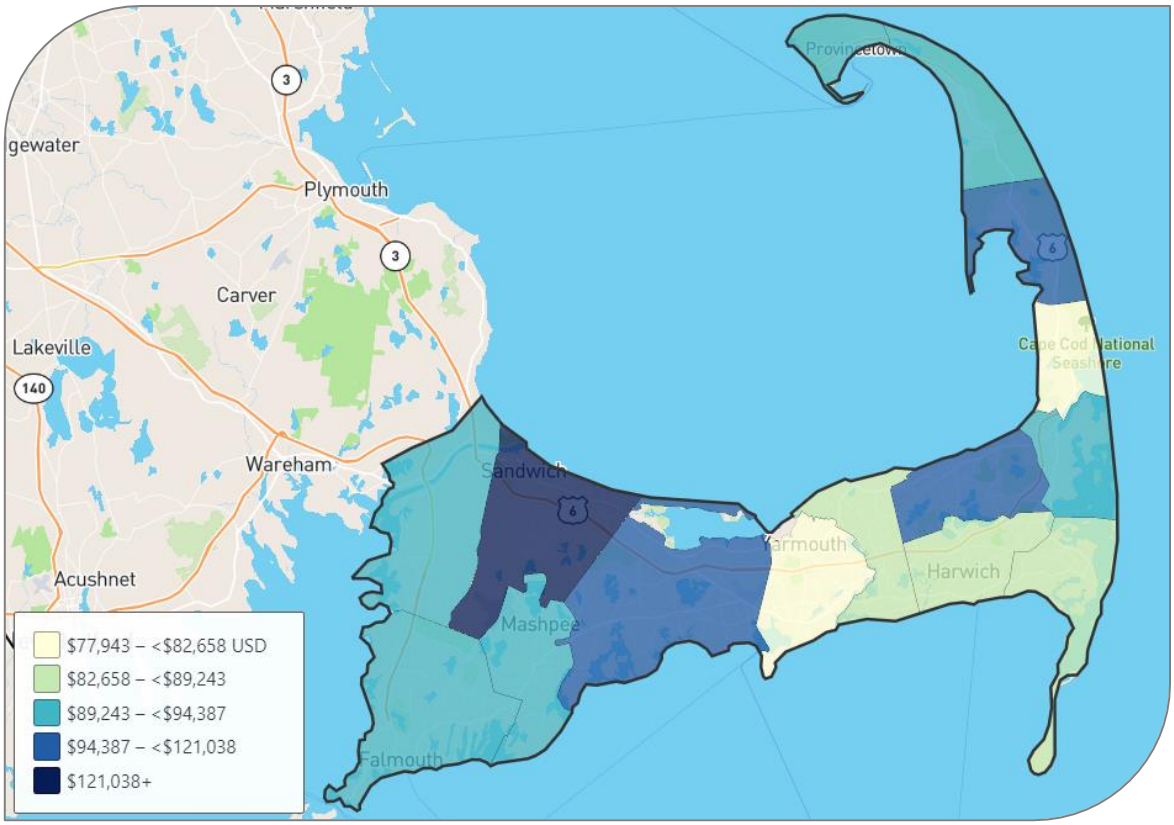
days in any given month.[13] In conjunction, Barnstable County has a mental health care provider ratio of 444 people per provider, compared to 307 people per provider in Massachusetts.[14]

Economic Stability

People living in poverty are less likely to have access to healthcare, healthy food, stable housing, and opportunities for physical activity. Research suggests that low-income status is associated with adverse health consequences, including shorter life expectancy and higher death rates for the 14 leading causes of death, among other poor health outcomes.[15]

Massachusetts has the fourth highest median income in the country. Of the 14 counties in Massachusetts, Barnstable County's $90,447 median income is the seventh highest in the state.

EXHIBIT 8: MEDIAN INCOME IN BARNSTABLE COUNTY, BY TOWN

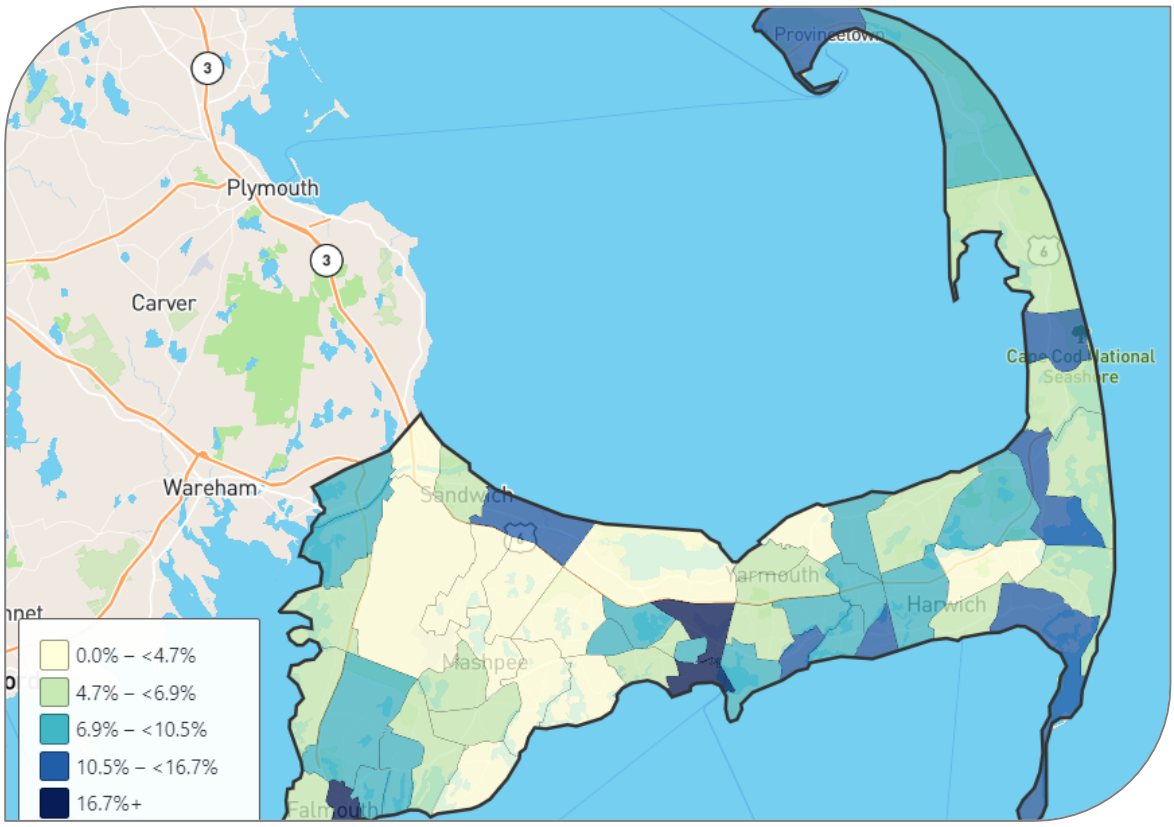


Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Despite the generally high median incomes in the region, economic disparities do exist, in part due to the high cost of living in the area. To find these economic disparities, it's necessary to drill down deeper than town-level percentages and look at census tract data.

[13] Centers for Disease Control and Prevention | Division of Population Health, PLACES: Local Data for Better Health
[14] National Plan & Provider Enumeration System NPI, 2022
[15] American Academy of Family Physicians, Poverty & Health. The Family Medicine Perspective, April 2021.

EXHIBIT 9: PERCENT OF PEOPLE BELOW POVERTY LEVEL, BY CENSUS TRACT IN BARNSTABLE COUNTY



Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Looking at census tract-level data, there are some pockets of Chatham and Orleans where between 10.5% and 16.6% of residents live below the federal poverty level.

Annual costs *for a family of 3 in Barnstable County:* ***$111,747****, the sixth most expensive county in the state of Massachusetts.*[16]

Median Household Income: ***$90,447*** [17]

Living wage for a family of 3 in Barnstable County:

$43.91

Minimum wage in Massachusetts:

$15.00

Living wage for a 3-person family in Barnstable County is more than 3 times the minimum wage in MA.

MIT Cost of Living Calculator

[16] Economic Policy Institute Family Budget Calculator, January 2023
[17] U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Qualitative Research and Identified Needs

Overview

The qualitative primary research stage of this Community Health Needs Assessment included one-to-one interviews and focus group discussions with stakeholders and community members on the Lower Cape.

The interviews provided an opportunity to have an in-depth discussion about community needs, physical and mental health care, and service issues with community leaders and professionals.

The focus groups enabled the participants to highlight areas of consensus and to compare differences as to what they see as the biggest needs facing the community.

Participation

The interviews and focus group discussions covered participants' broad perceptions of community needs, as well as more detailed areas of need.

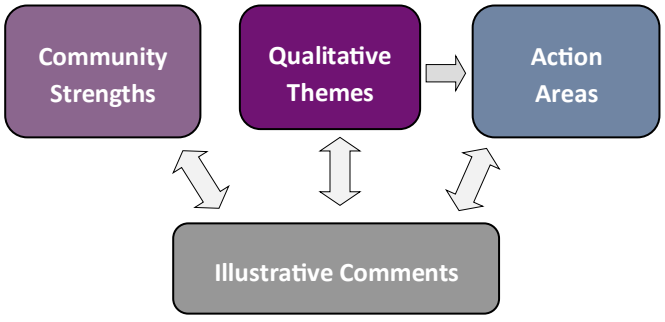
In total, across both qualitative research stages, over 100 individuals provided input from the following segments and others:

- Healthcare Organizations
- Governmental Organizations
- Faith-Based Organizations
- Municipal Leaders
- Community Partners
- Educators

Please note that these categories are not mutually exclusive for some individuals.

Results

The combination of qualitative individual interviews and focus group discussions provided information on the **Community Strengths** of the Lower Cape.



The qualitative discussions also resulted in several themes about areas of need, described as **Qualitative Themes.** Each of these themes cuts across and impacts subsequent Need Areas.

Following the themes are the **Action Areas**, which are representative of respondents' consensus perspectives. In some cases, the observations highlight examples of potential intervention.

Community Strengths

For this Community Health Needs Assessment, it is important to highlight the strengths that Lower Cape residents see in their community and to recognize programs and services seeing success in addressing community needs.

The Lower Cape is viewed as an idyllic area to retire. In the words of one community member, "I knew that when I was older, I would want to live on Cape Cod." There are a multitude of options for seniors seeking activities at the senior centers and the Councils on Aging. Outdoor recreation activities also exist in abundance for residents of all ages.

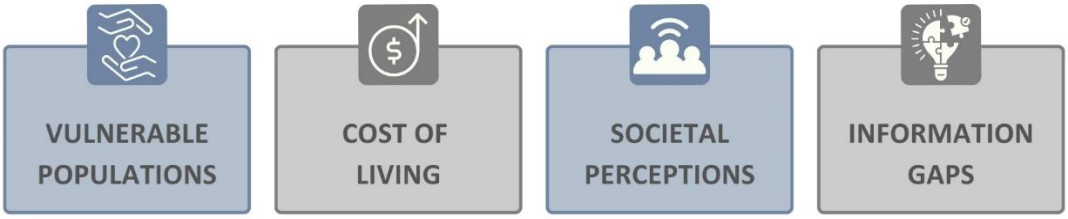
The community positively recognizes the commitment of organizations and agencies, including the local police, fire, EMS, and the county. Additionally, community members highlighted the passion of volunteer-driven services, such as Nauset Neighbors.

Additional strengths identified by community members include the following:

- **Brewster:** "There's a strong force of volunteers and community opportunities to get together. It's not too big and not too small. We have ample opportunities to spend time outside, an excellent school system, and employment prospects."
- **Chatham:** "There's a real sense of community and support. It's a small town where people know each other and find ways to all work together. There are low taxes and a well-run government with an absence of partisan politics."
- **Harwich:** "It's a relatively rural community with plenty of beaches, good atmosphere, good people, and activities for older adults. There's a passion in the community to keep the small-town feel and charm."
- **Orleans:** "There are programs run by the Council on Aging and Lower Cape Outreach Council, and some after-school programs. The local fire department offers wellness checks for residents. It's easy living."

Qualitative Themes

A combination of qualitative research methods results in four themes: Vulnerable Populations, Cost of Living, Societal Perceptions, and Information Gaps. These four themes consistently arose across all the high-level need areas.



Vulnerable Populations

Older Adults

The Lower Cape has a high percentage of older adults who have retired to the community. High costs of healthcare, food, utilities, and transportation mean that many people are struggling to stretch their budgets. As one community stakeholder stated, “older adults here who own their homes are house-rich, but cash-poor.”

Furthermore, older adults who have retired to Cape Cod may have moved away from their support networks and may be unable to navigate the community due to mobility, transportation, or cost concerns, putting them at risk of becoming socially isolated. An Orleans community member observed that “seniors here are aging in place and there’s no one to keep an eye on them.”

The Lower Cape towns have robust senior programming to address some of these vulnerabilities, including town public health nurses, Council on Aging programs specifically targeting senior social isolation, as well as well-being reassurance programs through several of the police departments.

Marginalized Community Members

Some stakeholders and community members expressed concern about the lack of services for marginalized segments of the population. Specifically, children, individuals with lower income, seasonal workers, and minorities.

As one community stakeholder stated, “we have a lot of services for our seniors, but kids fall through the cracks. Each town has a COA and elder services but nothing for youth.” Similarly, stakeholders note a lack of programs for individuals with lower socioeconomic status that can

help with basic skills and needs, such as balancing a budget and paying their bills, perpetuating a cycle of poverty.

Language barriers can also be a concern for non-English speakers trying to access services.

Cost of Living

While the cost of living has slowly been increasing over time, the COVID-19 pandemic, affordable housing crisis, and the record-high inflation over the recent years has created the perfect storm which has greatly impacted peoples' wallets and budgets. In a place like the Lower Cape, where the cost of living is high, these pressures are widespread.

> "When people think about the Cape, they think about the Kennedys, but there is a large number of kids eligible for free or reduced lunches and people who qualify for public assistance. It's not as glamorous as people think it is."
>
> -Community Partner

Growing housing, food, childcare, utilities, and health care expenses, particularly for home health care and specialty care, are key drivers of this concern. The high costs of goods and services price certain people out of living in the Lower Cape. One community member noted that families are leaving the area due to unaffordability.

A high cost of living can have a direct impact on both physical and mental health. As one Lower Cape community partner observed, "Patients don't care about their vital signs if they're worried and stressed about paying their mortgage or putting the next meal on the table."

Workforce Limitations

Multiple community stakeholders and residents across all four towns of the Lower Cape expressed that the Lower Cape's workforce and economy is greatly impacted by the cost of living and the lack of attainable housing. Individuals and families seeking to move to the area for employment opportunities are unable to afford it. As a result, critical employers like fire and police departments, healthcare systems, and schools are struggling to hire employees.

As one community stakeholder noted, "I am extremely concerned about the high cost of living and the housing crisis. When I look at the future, I'm nervous. Employers are having to lower their professional standards because of a decreased applicant pool."

Childcare

The need for someone to work multiple jobs due to a high cost of living may mean a family also needs to pay for childcare. These costs can quickly add up, especially for families with multiple children.

The Economic Policy Institute estimates childcare costs for a family of 4 with 2 children totals over $26,000 a year in Barnstable County.

Regardless of affordability, there is no guarantee of availability, as many community members note the scarcity of daycare and childcare programs.

Societal Perceptions

In a community, stigma surrounding certain issues can impact community well-being. Residents may hesitate to seek help due to fear of judgement. This tendency to ignore problems perpetuates a cycle of silence and neglect, worsening challenges for those in need.

In Lower Cape Cod, there is stigma surrounding substance use, food insecurity, and mental health treatment. This stigma fosters an environment where important health and social issues can be overlooked. Comprehensive community education is crucial to address the existing societal perception because it can prevent access to necessary services such as substance use disorder treatment, food or economic assistance, and mental health treatment.

As one community partner noted, “Issues in these towns do exist, but certain members of the community have such a deep stigma about things like substance use and mental health that they never want to talk about it.”

Educating the community about the prevalence of substance use, mental health issues, and food insecurity can break down misconceptions and create a more supportive environment. By highlighting these issues and promoting open conversations, residents can become aware of their neighbors' struggles and feel empowered to offer support. Reduced stigma can also provide a more positive environment for individuals to seek help without fear of judgment.

> “Lower Cape towns have more than a drug use problem. There’s a lack of education about what’s happening in the community and how to help people who are struggling with these issues. There’s a need for education in the community.”
>
> -Community Partner

Information Gaps

In Lower Cape Cod, significant information gaps and organizational silos hinder the effectiveness of community support services.

> "Many of the small towns of the Lower Cape see themselves as having unique challenges, but geographic boundaries don't have to mean resource silos. In terms of pooling resources and brain power, collaborative efforts across towns and organizations are what's needed to make real change." -Community Partner

Community stakeholders have found that organizations within and across towns often fail to collaborate, resulting in a fragmented approach to addressing local issues.

A lack of cross-town effort also makes it difficult for residents to learn about and access the resources they need because the information is not centralized in a well-known place. Through the course of the focus group discussions, many individuals expressed wanting more information available to them about the resources and services that are available.

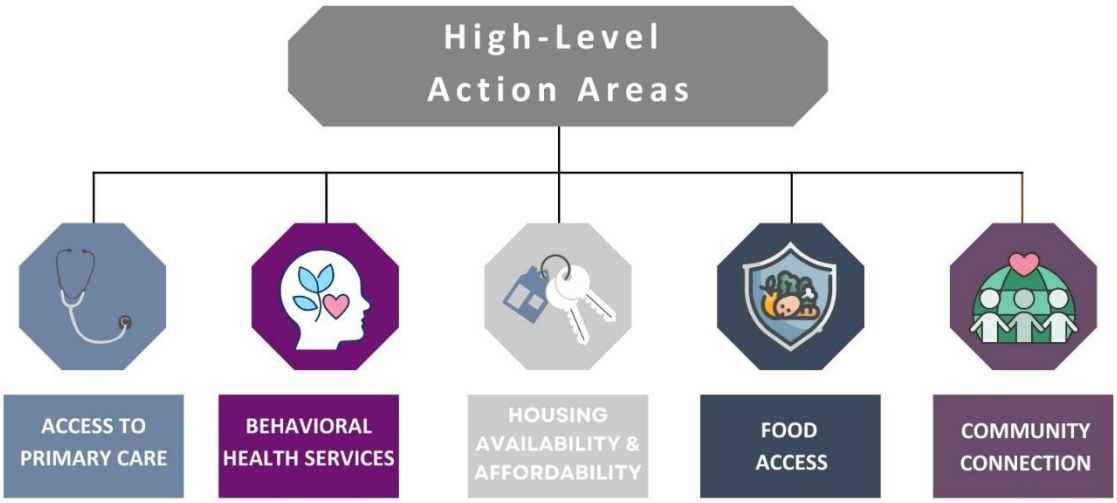
As one community member remarked, "it defeats the purpose of having services if people don't know that they exist."

Furthermore, there is a widespread misunderstanding about the responsibilities of the county and local health departments, adding to the confusion. However, there is a desire for the community to be more engaged and have more information.

High-Level Action Areas

The following action area categories were derived from the qualitative themes that arose as a result of stakeholder interviews and focus group discussions. Each action area includes an overview of the subject, de-identified illustrative observations gathered during the qualitative research process and supporting quantitative secondary research. The illustrative observations are representative of respondents' consensus perspectives.

For people to lead full and healthy lives, all these needs must be addressed.

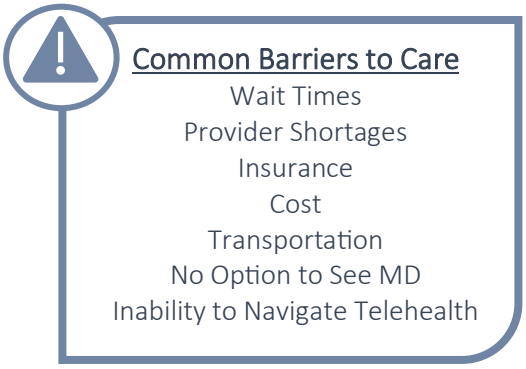


Access to Primary Care

Long wait times and providers not accepting new patients are all indicative of limited provider capacity. Projections published by the Association of American Medical Colleges (AAMC) estimates that by 2036 there will be a physician shortage of up to 86,000 physicians across the United States.[18]

Not being able to access care, especially preventive care, can lead to worse health outcomes. Diagnoses of chronic diseases and possibly life-threatening illnesses, such as cancer, can be missed without preventive care. Additionally, inability to access a PCP can lead to higher acuity cases in the future. Patients may end up in urgent care or the emergency room as a stopgap measure. This can result in expensive health bills that individuals may not be able to afford and bogs down emergency services for true healthcare emergencies.

The lack of primary care providers was overwhelmingly the top need identified by community stakeholders and Lower Cape residents. Some community members report waiting up to two years to see a PCP, while others had to drive significant distances off-Cape to see a provider. Lower Cape residents report being instructed by their PCP office to go to the urgent care at Fontaine Outpatient Center in Hyannis for routine care.



Certain community members have opted to seek out "concierge" healthcare services, which is a model of healthcare that offers exclusive, personalized care with a focus on convenience and accessibility. However, this is cost-prohibitive, and not available to those who are unable to afford it. As one community member stated, "people who have the means and ability will get a concierge doctor or go to Boston. People who are economically disadvantaged can't do that."

Telehealth has surged in popularity in the wake of the COVID-19 pandemic, but individuals without internet access or those who are technologically disinclined may struggle to navigate the systems required to access virtual medicine.

A shortage of medical providers can put strain on other community resources. As one community partner expressed, "People who have medical events and don't have established care have to lean on services like fire, police, and EMS. But these services can't follow-up with them and what happens is people rotate in and out of the hospitals, putting a strain on the system and leading to staff burnout."

[18] AAMC. New AAMC Report Shows Continuing Projected Physician Shortage. https://www.aamc.org/news/press-releases/new-aamc-report-shows-continuing-projected-physician-shortage

Insights from the community include the following:

- "There aren't enough providers here. The influx of people who moved here during the COVID-19 pandemic made it harder to establish care with a provider."
- "Primary care is the biggest need for a lot of reasons. The vast majority of residents here have Medicare, and the reimbursement rates makes managing a small practice, especially for new doctors, cost prohibitive."
- "It's hard to find a medical home. After I finally found a PCP after moving here, within a year that doctor had left and now I'm signed up with a nurse practitioner. Some people may be reluctant to see a nurse practitioner or physician's assistant vs. a PCP."
- "After a 15-month wait to get a PCP appointment for a true physical, the office is now becoming a concierge service that runs on a tiered payment system. Basically, you're paying for access, and you get what you pay for."

Behavioral Health Services

More than half the United States population lives in a Mental Health Professional Shortage Area. The Health Resources and Services Administration estimates that by 2036, there will be a substantial shortage of mental health counselors, psychologists, psychiatrists, addiction counselors, and marriage and family therapists.[19]

The lack of mental health providers on Cape Cod has made it very difficult, if not impossible, to get appointments for chronic mental health conditions such as depression and anxiety.

With a lack of available mental health providers and crisis services, community residents often use emergency services as a safety net for a crisis. Some towns have licensed social workers embedded in police departments to accompany police on calls. Several community stakeholders and residents recommended expanding psychiatric and mental health crisis programs to assist with the burden on law enforcement, emergency medical services, emergency rooms, and urgent care facilities.

Insights from the community include the following:

- "Police officers are well trained to handle mental health crises, but in the peak of summer when the police are called for mental health issues that aren't law enforcement issues, it takes up resources."

[19] HRSA. Behavioral Health Workforce, 2023. https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Behavioral-Health-Workforce-Brief-2023.pdf

- “There’s a lack of psychiatrists on Cape Cod, it’s almost impossible to get an appointment. People will often go to a PCP, if they have one, for depression or anxiety, but there’s a need for mental health counselors.”
- “I was told a therapy appointment for a 6-year-old would be an 18-month wait. We had to change insurance in order to open up the pool of providers, and even then, we couldn’t find the right fit.”
- “Because of the lack of providers, people will go to the emergency room and then they’ll be released back to their home without the services to get them back on track. It’s very frustrating for social service [providers] and a drain on resources.”

Substance Use Disorder Treatment and Prevention

Substance use is a complicated issue requiring comprehensive community action to address, from early intervention efforts through treatment and recovery. It is also important for communities to be educated and have an understanding of the issues to decrease stigma and increase support.

With the immensity of the undertaking, community collaboration is a key component to robust substance use programming. As one stakeholder mentioned, “none of the four towns of the Lower Cape have a substance use coalition that brings togethers providers, community stakeholders, and residents … it’s immensely important to leverage funding to create community providers that have ties to the community that the community can trust.”

Insights from the community include the following:

- “The Lower Cape needs a dual-diagnosis inpatient facility. There's Gosnold and Cape Cod Hospital, but it's not enough. I think families would be relieved to have something here because so many people are affected by [substance use] issues and having to go far away to get treatment causes so many other problems.”
- “It’s likely that everyone in this community has been affected or knows someone that has been affected by substance use, but no one talks about it. When we don’t talk about the issues, we can’t deal with the root causes and work on preventing them in the first place.”
- “Opioid use is big across all ages. There's high vaping use among teenagers and we want to try to mitigate that use before it leads to other drugs.”

Housing

The housing crisis is a nation-wide problem. In a small geographic area like Cape Cod, where the cost of living is high, second-home properties sit vacant most of the year, and short-term rentals are prolific, the housing availability and affordability problem is severe.

The COVID-19 pandemic created unique challenges in the Lower Cape community, with many people moving to the area and taking advantage of the ability to work remotely. Since a spike in single-family home sales in 2020, the number of property sales has decreased in each of the four Lower Cape towns, with housing and rental stock dropping dramatically. As one community member stated, "It used to be that average people couldn't afford to buy here, now there's no place to buy."

Amid the low housing availability, some individuals are creative with living arrangements and live in three-season rentals from autumn-spring. However, when the property is converted into a short-term rental for the summer, those people are often left unsheltered, with reports of living in campers, tents, couch-surfing, or other temporary arrangements, due to the lack of options.

In addition to limited availability, affordability is an issue as well. The median home prices have been increasing, particularly after the pandemic. As one community stakeholder noted, "The median home price is over $1 million – that's really hard to afford for us working people."

While the high housing costs might deter people from moving to the Lower Cape, it's also a challenge for the people who already live in the area and may need to move. Seniors who currently own their home and need to downsize are often unable to find an affordable option to buy or rent.

In addition to the high costs of rent and home prices, the constraints of low vacancies and limited housing options for older adults lead many people to age in place, thereby not selling their homes. This may result in the deterioration of houses in the community as older adults are physically unable to perform the maintenance themselves and are unable to afford the cost of hiring someone to complete the necessary repairs.

Housing's Impact on Employment

The unaffordability and unavailability of housing is contributing to an employment crisis on Cape Cod, which has wide-ranging impacts on the community as a whole.

As one community member noted, "There's a lack of workers to do jobs. Residents are on wait lists to get services because community organizations can't hire workers because the workers can't find a place to live."

Insights from the community include the following:

- "We need a short-term rental bylaw in this town; people are making a fortune selling Cape Cod one week at a time. Short-term rentals are killing the housing market, and it's also killing the motel industry. Motels are now becoming affordable housing."
- "The short-term rentals limit available properties. Houses that are for sale are sometimes bought by investment companies and turned into short-term rentals."
- "People in the summertime rent out their homes and go live in a tent in Nickerson Park or live in their car. It's a way for people to make a living from their only asset. Just because you have a house on the Cape doesn't mean you can afford to live here."
- "Maintenance of a house is another problem here. People own their home but can't afford to do any maintenance on them."
- "How are we going to attract teachers, police officers, firefighters, or just any people to work here when there are no places for them to live?"
- "Families are having to move away because of the housing crisis. When families and children leave, the character of a community disappears."

Food Security

Several community partners in the Lower Cape are concerned about food insecurity. As one stakeholder remarked, "People here are hungry, or have been hungry, or are worried about where their next meal is coming from. Seasonal workers, especially, don't make enough money to afford food because the cost of living here is so high. It's just shy of being an epidemic."

While food insecurity is recognized as a community need by many stakeholders familiar with the issue, it remains largely hidden. Stigma surrounding requests for assistance with basic needs, such as food, contributes to this invisibility. Additionally, some community members may be unaware that their neighbors are facing challenges in accessing basic necessities.

Cape Cod has an extensive network of 48 individual food pantries that are a part of the Greater Boston Food Bank, with 10 pantries located in the towns of the Lower Cape.[20] Community members noted that the existence of food pantries is only a part of the solution for ensuring access to nutritional food, as transportation to and from the pantry can be a barrier.

To assist with nutritional security for youth, all students in Massachusetts are permanently eligible for free school meals as of the 2023-2024 school year.[21] There are additional summer

[20] https://www.capecodhungernetwork.org/Food-Pantries. Data Retrieved in July 2024.
[21] https://projectbread.org/school-meals-program

food programs for youth to fill in the gaps, but similar to the issue with the food pantries, children and families have to be able to get to the food programs in order to access them.

Insights from the community include the following:

- "There are a lot of [individuals from certain communities] who aren't eligible for SNAP benefits and struggle to get food; sometimes they're only eligible for $16 in food benefits and that doesn't help a whole lot for a monthly grocery budget."
- "Food insecurity has a lot of shame associated with it. People can be told about services, but that doesn't mean they'll go. It's a small town and people talk; people don't want to have the stigma of going to a food pantry."
- "Food insecurity and nutrition is a big concern, with the cost of food being so high, people are buying less nutritious food because it costs less."

Community Connection

Transportation

Transportation is one of the main barriers to access care, services, and engage in local events in many communities, but especially for rural communities that lack large-scale public transportation infrastructure. Barnstable County has several transportation options, including the Cape Cod Regional Transit Authority, which offers fixed route service throughout Cape Cod, on-demand ride-hail service through SmartDART, medical transportation to Boston hospitals, and ADA Paratransit door-to-door service. There are additional options for medical transportation for people with Medicaid, as well as other options for general transportation provided through volunteer services such as Nauset Neighbors and additional options for seniors.

Despite having some public and on-demand transportation, Lower Cape residents are largely dependent on personal vehicles. For those that are unable to drive or do not have a vehicle, they are reliant on volunteer services, the kindness of neighbors, or they have to pay often exorbitant costs for scarce ride-sharing services or hire a taxi service.

Walk Scores

Orleans: 67 *Somewhat Walkable*
Chatham: 66 *Somewhat Walkable*
Brewster: 41 *Car Dependent*
Harwich: 34 *Car Dependent*

Source: walkscore.com/score

Transportation can also be a barrier for people seeking employment opportunities. If a person is unable to find public transportation that is amenable to their work schedule, it can be difficult for that person to maintain employment. For that reason, community members expressed a

desire to have increased bikeability, especially since it would positively impact the ability of seasonal workers to navigate the community without relying on public transportation or a personal vehicle.

Insights from the community include the following:

- "Transportation is a real problem. It can be a three-hour ride to get from one end of the Cape to the other, and there's not enough density to warrant a mass transit system."
- "Transportation is a barrier that impacts every aspect of daily life for so many people. If you don't have transportation, you can't get to your job or to childcare, and the options for public transportation are incredibly limited."
- "If people can't get to their medical appointment because they don't have a ride, then they don't go and don't get the care they need."
- "The elderly can't bounce around on the bus for two hours to go to a doctor's appointment; it's a long ride to get anywhere."

Events and Locations

Social connection is vital for community well-being, reducing feelings of isolation and improving mental and physical health. Public events and locations that foster this social connection are crucial for the fabric of a community and establishing a neighborhood nexus.

Active residents report ample opportunities to engage in outdoor and recreational activities. Council on Aging programming, the town senior centers, and the Harwich Community Center provide options for older residents who are able and interested.

Many community residents agreed that the Lower Cape does not have enough accessible programs for youth, particularly during the summer. Summer programs are available, but the costs can be prohibitive for families, especially if they have more than one child.

When members of a community across all age and income groups have the ability to come together and engage, it enhances community cohesion. In turn, this promotes mutual trust, shared values, and a sense of belonging and support. As one community resident noted, "the COVID-19 pandemic made it 'every man for himself.' We need accessible, free events where people of all ages can interact and learn about their neighbors, learn about and love their community. We're all in this together."

Insights from the community include the following:

- “We need somewhere to meet up that’s not a bar and doesn’t require money. If you don’t drink and don’t have money, there’s nothing to do.”
- “Ties to the community and trusting community-based providers is immensely important, especially in the small towns of the Lower Cape where all we have is each other.”
- “We don't have teen activity centers that focus on physical activity or healthy pastimes like chess or other mentally stimulating games. We don't have robust adult programming either that are economica

Access Audit

Phone-based access audits are an essential tool used to assess the ease with which community members can reach healthcare services and community resources across Lower Cape Cod. These audits focus on evaluating access rather than on profiling specific sites, aiming to provide a comprehensive understanding of practical healthcare access and other essential services. By identifying barriers that individuals encounter when seeking care, these audits play a crucial role in highlighting gaps in access, suggesting strategies for improvement, and revealing disparities in service delivery.

Crescendo conducted phone audits involving 13 locations serving the Lower Cape Cod service area. These facilities offer a wide range of services, including behavioral healthcare, primary care, and community assistance programs.

1. Outer Cape Health Services – Recovery
2. Outer Cape Health Services – Behavioral Health
3. Fontaine Outpatient Center
4. Cape Gynecology
5. Cape Cod Healthcare
6. Bass River Pediatrics
7. Nantucket Sound Psychiatry
8. Nauset Family Medicine
9. Gosnold Behavioral Health
10. Yarmouth Comprehensive Treatment Center
11. VNA of Cape Cod
12. Cape Cod Family Resource Center
13. Briarpatch Pediatrics

Through these audits, Crescendo aimed to gather valuable insights into the accessibility of healthcare services in the region. The findings from these assessments will help in understanding the current state of access, pinpointing areas where improvements are needed, and identifying variations in how services are provided across different facilities. This information is instrumental in shaping policies and interventions aimed at enhancing healthcare accessibility and equity for all community members on Lower Cape Cod.

Phone audits were conducted at different times within standard business hours from Monday to Friday in mid-June.

Successful contact with facility.

Out of the 13 calls made, the caller was directly connected to a staff member without having to navigate a phone tree in five instances. However, among the remaining eight facilities, two

could not be contacted for different reasons: at one site, the phone number was out of service, and at another, the caller was prompted to leave a voicemail; however, the voicemail box was full.

For the other six facilities, contacting a staff member required navigating through a phone tree system. It's important to note that during these interactions, no alternative language options were available, potentially posing a barrier to non-English-speaking community members seeking services.

Ability of facility to accept new patients.

Among the 11 facilities contacted, nine are currently open to accepting new patients and clients seeking healthcare services and participating in community programs. None of the pediatric facilities contacted are currently accepting transfer patients; they are only accepting newborn babies due to staff shortages. Notably, all behavioral health facilities contacted that provide services for adults and youth reported that they are accepting new patients and offer same-day services and walk-in options.

Ability of facility to answer questions and refer caller elsewhere when desired services were unavailable.

The majority of facilities provided comprehensive assistance by offering referrals to various other organizations, additional community resources, and contact details for additional services within the area. In general, the personnel handling the phone lines were noted for their exceptional helpfulness and kindness, creating a pleasant and informative experience for callers.

Specifically, at one pediatric facility, the staff devoted approximately 10 minutes to discussing other service providers in the locality and recommended that the caller consult their insurance provider for a complete list of pediatricians covered under their plan. This exemplified a thorough effort to ensure the caller received comprehensive information tailored to their needs.

Similarly, at a behavioral health services site, the staff provided clear and detailed explanations about both inpatient and outpatient programs available, along with a comprehensive overview of the intake process. This demonstrated a commitment to transparency and ensuring callers understood the services offered, thereby enhancing access to vital behavioral healthcare resources.

These interactions highlight the dedication of these facilities to supporting community members by not only providing immediate assistance but also by guiding them towards additional resources and ensuring they are well-informed about available healthcare options.

How staff inquiries help to determine prospective patient's needs.

Upon initiating each phone call, the majority of staff members diligently inquired about the caller's specific needs, geographical location, and insurance coverage. For facilities that had age restrictions or specific eligibility criteria, additional questions were posed regarding the intended client's age and any pertinent details. This proactive approach served to tailor the assistance provided, ensuring that callers received customized information and appropriate referrals based on their unique circumstances and the facility's capabilities. In instances where the caller did not meet the criteria for services at a particular facility, staff members promptly offered alternative options. This commitment to responsiveness and individualized support underscored the dedication of these organizations with assisting callers in navigating their healthcare options effectively.

Ease of speaking with a person.

Establishing contact with a staff member at most facilities proved straightforward, typically connecting the caller to a staff member within five minutes. Among the 11 sites assessed, approximately half facilitated direct connection without navigating a phone tree, allowing callers prompt access to staff capable of addressing their inquiries or facilitating transfers to appropriate personnel. However, one site posed significant difficulty in accessing; despite three contact attempts, the absence of voicemail options prevented the caller from receiving a return call.

These findings highlight the varying degrees of accessibility experienced by callers seeking assistance from healthcare and community service providers. While many facilities demonstrated efficient responsiveness, the challenges encountered at certain sites underscore the importance of streamlined communication channels and reliable access methods for ensuring effective support and service delivery to community members.

Language offerings.

None of the facilities contacted offered phone system options in languages other than English. Specifically, when callers asked about the availability of Spanish-speaking providers, none of the facilities confirmed direct access to such services. However, all facilities assured callers that they provide translation services in both Spanish and Portuguese.

This lack of direct language options underscores the challenges faced by non-English-speaking community members in accessing healthcare services in Lower Cape Cod. Despite the availability of translation services, the absence of immediate language options creates initial barriers for individuals seeking care. Ensuring robust language access is critical to promoting equitable healthcare access and effective communication between providers and diverse community members.

Community Survey

The purpose of the community survey was to enable a greater share of people living and working on the Lower Cape to share their perspectives on the greatest needs affecting their community.

Methodology

The community survey was made available online and via print copies in English, Spanish, Haitian Creole, and Portuguese. The questionnaire included closed-ended, need-specific questions, open-ended questions for community members to provide input, and demographic questions. Invitations to participate were distributed by partners through channels including Health Department websites, emails, and newsletters.

Of 397 responses received, 384 valid survey responses were included in this analysis, all of which were to the English language version of the survey.

Response validity was adjusted based on respondent completion of one or more non-demographic survey questions. Special care was exercised to minimize the amount of non-sampling error through the assessment of design effects (e.g. question order and wording). The survey was designed to maximize accessibility in evaluating respondents' insights with regards to an array of potential community needs.

Whie the survey served as a practical tool for capturing insights of individuals across the Lower Cape, this was not a random sample. Findings should not be interpreted as representative of the full population.

Additionally, sample sizes of demographic subpopulations are not large enough to consider samples to be representative of the broader populations from which responses were received. Differences in responses have not been tested for statistical significance as part of this assessment.

See Appendix C for the survey instrument.

Respondent Demographics

Among 384 valid responses to the community survey, two in three (68.7%) were from individuals living and/or working in Brewster. The next largest contingent of participants was from Chatham (13.9%). More than two-thirds of respondents (68.0%) are age 65 or older, driven by a large proportion of those from Brewster (71.7%). Respondents from Orleans were younger, although the number of Orleans respondents was the smallest among the four towns. The vast majority of respondents identify as White or Caucasian (98.9%), with small numbers of those identifying as Asian, Black or African American, and/or another race.

EXHIBIT 10: RESPONDENT DEMOGRAPHICS – AGE, RACE, & ETHNICITY

DEMOGRAPHIC VARIABLE	PERCENT OF RESPONDENTS				
	Brewster	Chatham	Harwich	Orleans	Overall
NUMBER (PERCENT OF TOTAL)^	261 (68.7%)	53 (13.9%)	44 (11.6%)	40 (10.5%)	**384**
AGE					
Under 25	0.0%	0.0%	0.0%	0.0%	**0.3%**
25 to 34	2.5%	2.4%	3.3%	9.4%	**2.8%**
35 to 44	4.5%	9.8%	6.7%	3.1%	**4.9%**
45 to 54	5.1%	9.8%	3.3%	3.1%	**6.9%**
55 to 64	16.2%	26.8%	23.3%	21.9%	**17.0%**
65 to 74	48.0%	24.4%	23.3%	34.4%	**42.7%**
More than 75 years old	23.7%	26.8%	23.3%	28.1%	**25.3%**
RACE^					
White or Caucasian	98.9%	100.0%	96.7%	100.0%	**98.9%**
Black or African American	0.0%	0.0%	3.3%	0.0%	**0.4%**
Asian	1.1%	0.0%	0.0%	0.0%	**0.7%**
Native American or Alaska Native	0.0%	0.0%	0.0%	0.0%	**0.0%**
Native Hawaiian or Pacific Islander	0.0%	0.0%	0.0%	0.0%	**0.0%**
Another Race	0.5%	0.0%	0.0%	0.0%	**0.4%**
ETHNICITY					
Hispanic, Latino, or Spanish origin	0.5%	0.0%	0.0%	0.0%	**0.4%**

^ Percentages total more than 100% because respondents were instructed to select as many options as apply to them.

Three in four respondents (72.0%) identify as female, with nearly a quarter identifying as male (23.6%). While most respondents identify as heterosexual (87.7%), there were small numbers of those identifying as gay/lesbian or bisexual/pansexual.

EXHIBIT 11: RESPONDENT DEMOGRAPHICS – GENDER IDENTITY, SEXUAL ORIENTATION, & HOUSEHOLD CHARACTERISTICS

DEMOGRAPHIC VARIABLE	PERCENT OF RESPONDENTS				
	Brewster	Chatham	Harwich	Orleans	Overall
GENDER IDENTITY					
Female	72.1%	78.6%	71.0%	69.4%	**72.0%**
Male	23.9%	19.0%	22.6%	22.2%	**23.6%**
Gender Non-Binary	0.5%	0.0%	3.2%	0.0%	**0.3%**
Transgender Female	0.0%	0.0%	0.0%	0.0%	**0.0%**
Transgender Male	0.0%	0.0%	0.0%	0.0%	**0.0%**
My gender identity is not listed	0.0%	0.0%	0.0%	0.0%	**0.0%**
I prefer not to answer	3.5%	2.4%	3.2%	8.3%	**4.1%**
SEXUAL ORIENTATION					
Heterosexual	87.4%	88.1%	90.0%	80.0%	**87.7%**
Gay / Lesbian	5.0%	0.0%	0.0%	5.7%	**4.1%**
Bisexual / Pansexual	1.0%	4.8%	3.3%	0.0%	**1.4%**
My sexual orientation is not listed	0.0%	0.0%	0.0%	0.0%	**0.0%**
I prefer not to answer	6.5%	7.1%	6.7%	14.3%	**6.8%**
HOUSEHOLD CHARACTERISTICS					
Live in a single-parent household	11.1%	17.1%	31.3%	8.6%	**13.3%**
Live in a multi-generation household or in a home with three or more generations living together (such as grandparents, kids, and grandkids)	7.0%	7.1%	12.1%	2.9%	**6.8%**
Had a temporary housing situation (such as a winter rental that becomes unavailable in the summer) in the past two years	3.0%	4.8%	9.4%	0.0%	**3.1%**

More than one in eight respondents (13.3%) report living in a single-parent household, including one in three of those from Harwich (31.3%). Small proportions of respondents report living in multi-generation households, ranging from 2.9% of those from Orleans to 12.1% of those from Harwich. One in 10 of those from Harwich (9.4%) report having a temporary housing situation in the past two years, the highest among the four towns represented.

Nearly half of all respondents (46.1%) reported having at least a Master's or Graduate Degree, with an additional one-third (35.3%) reporting having a Bachelor's Degree. More than one in five respondents (21.7%) reported having annual household income of $150,000 or more. Those from Orleans reported having lower levels of annual household income than those from the other towns represented.

EXHIBIT 12: RESPONDENT DEMOGRAPHICS - EDUCATION LEVEL & HOUSEHOLD INCOME

DEMOGRAPHIC VARIABLE	PERCENT OF RESPONDENTS				
	Brewster	Chatham	Harwich	Orleans	Overall
EDUCATIONAL ATTAINMENT					
Less than a high school diploma	0.0%	0.0%	3.2%	0.0%	**0.3%**
High school degree or equivalent (such as GED)	1.0%	2.4%	3.2%	0.0%	**1.4%**
Some college, no degree	8.5%	19.0%	16.1%	6.3%	**10.4%**
Associate degree	7.0%	7.1%	6.5%	6.3%	**6.6%**
Bachelor's Degree	38.2%	23.8%	32.3%	43.8%	**35.3%**
Master's or Graduate Degree	36.7%	38.1%	38.7%	34.4%	**37.4%**
Professional or doctorate degree (such as MD, DDS, DVM, PhD, JD, etc.)	8.5%	9.5%	0.0%	9.4%	**8.7%**
ANNUAL HOUSEHOLD INCOME					
None	0.6%	0.0%	0.0%	0.0%	**0.4%**
Under $25,000	4.5%	2.9%	8.0%	3.7%	**4.9%**
$25,000 - $49,999	10.3%	2.9%	8.0%	7.4%	**8.8%**
$50,000 - $74,999	12.9%	11.8%	20.0%	29.6%	**14.6%**
$75,000 to $99,999	18.7%	20.6%	20.0%	14.8%	**18.6%**
$100,000 to $124,999	18.7%	17.6%	12.0%	14.8%	**17.7%**
$125,000 to $149,999	13.5%	14.7%	20.0%	7.4%	**13.3%**
$150,000 to $199,999	9.0%	11.8%	12.0%	11.1%	**10.2%**
$200,000 or more	11.6%	17.6%	0.0%	11.1%	**11.5%**

Two in five respondents reported living with one or more of the disabilities or impairments listed (40.6%). This proportion was as high as half (50.0%) for respondents from Harwich and Orleans. The most commonly reported conditions were sensory impairment (13.9%) and mobility impairment (12.3%). Learning disabilities, while reported by only one in 20 of those overall (5.3%), were most common among those from Chatham (12.5%) and Harwich (15.4%).

EXHIBIT 13: RESPONDENT DEMOGRAPHICS - DISABILITY STATUS

DEMOGRAPHIC VARIABLE	PERCENT OF RESPONDENTS				
	Brewster	Chatham	Harwich	Orleans	Overall
DISABILITY STATUS					
Any disability or impairment listed	38.2%	40.6%	50.0%	50.0%	**40.6%**
A sensory impairment (vision or hearing)	11.8%	12.5%	15.4%	21.4%	**13.9%**
A mobility impairment	11.8%	18.8%	7.7%	7.1%	**12.3%**
A temporary impairment due to illness or injury (i.e. broken ankle, surgery)	8.8%	6.3%	7.7%	3.6%	**8.2%**
A mental health disorder	7.6%	9.4%	19.2%	10.7%	**7.8%**
A long-term medical illness (i.e. epilepsy, cystic fibrosis)	4.1%	6.3%	7.7%	10.7%	**5.7%**
A learning disability (i.e. ADHD, dyslexia)	5.3%	12.5%	15.4%	3.6%	**5.3%**
A disability or impairment not listed	4.7%	6.3%	3.8%	0.0%	**4.5%**
I do not identify with a disability or impairment	61.8%	59.4%	50.0%	50.0%	**59.4%**

Findings

Most respondents (87.2%) reported having access to routine care through a family doctor, family health center, or clinic. Another one in 10 (11.0%) reported accessing routine care via walk-in urgent care. 'Other' submissions included routine care sought off the Cape, such as in Boston, as well as comments about difficulties finding timely primary and specialty care.

EXHIBIT 14: SOURCES OF ROUTINE CARE

Do you have a family doctor or place where you go for routine care?	PERCENT OF RESPONDENTS
Yes, family doctor, family health center, or clinic	87.2%
Yes, walk-in urgent care	11.0%
Yes, emergency room	1.6%
No	5.8%
Other (please specify)	5.8%

One in five respondents (20.4%) reported not being about to get needed medical or mental/behavioral health care on one or more occasions in the past two years.

EXHIBIT 15: INABILITY TO ACCESS NEEDED CARE

In the past two years, has there been one or more occasions when you needed medical care or mental/behavioral health care but were NOT able to get it?	PERCENT OF RESPONDENTS
Yes	20.4%
No	79.6%

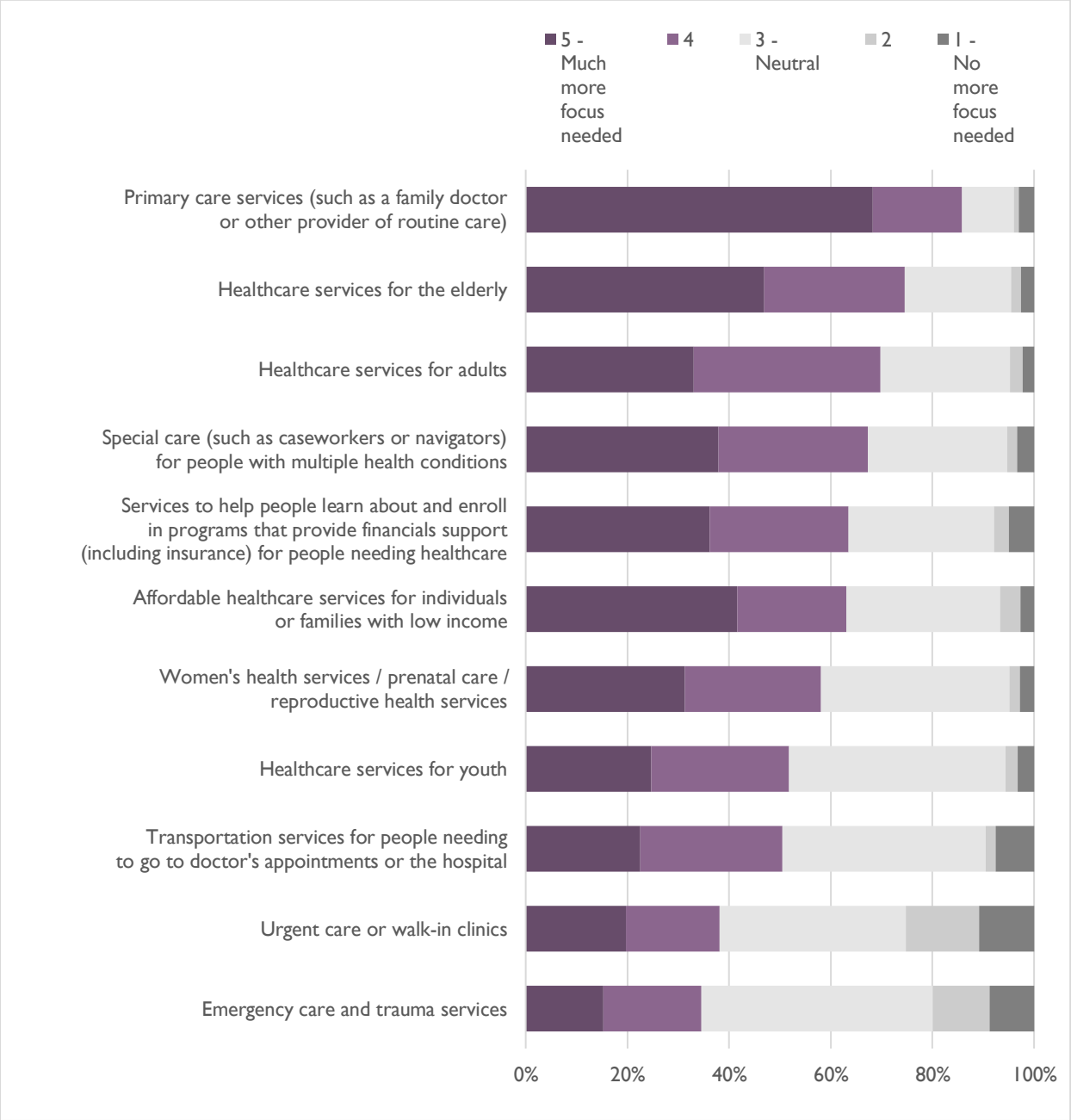
Long wait times to see a provider most commonly affected respondent access to needed care.

EXHIBIT 16: REASONS FOR INABILITY TO ACCESS NEEDED CARE

What prevented you from accessing health care or mental health services when you needed it? (Select all the apply)	PERCENT OF RESPONDENTS
Long wait times to see a provider	16.0%
Did not feel comfortable with available providers	3.4%
Doctor's office is too far from my house	2.9%
Lack of money / ability to pay	2.1%
Lack of transportation	1.3%
Lack of health insurance	0.5%
Concern about immigration status	0.3%
Providers did not speak my language	0.0%
Other (please specify)	4.5%

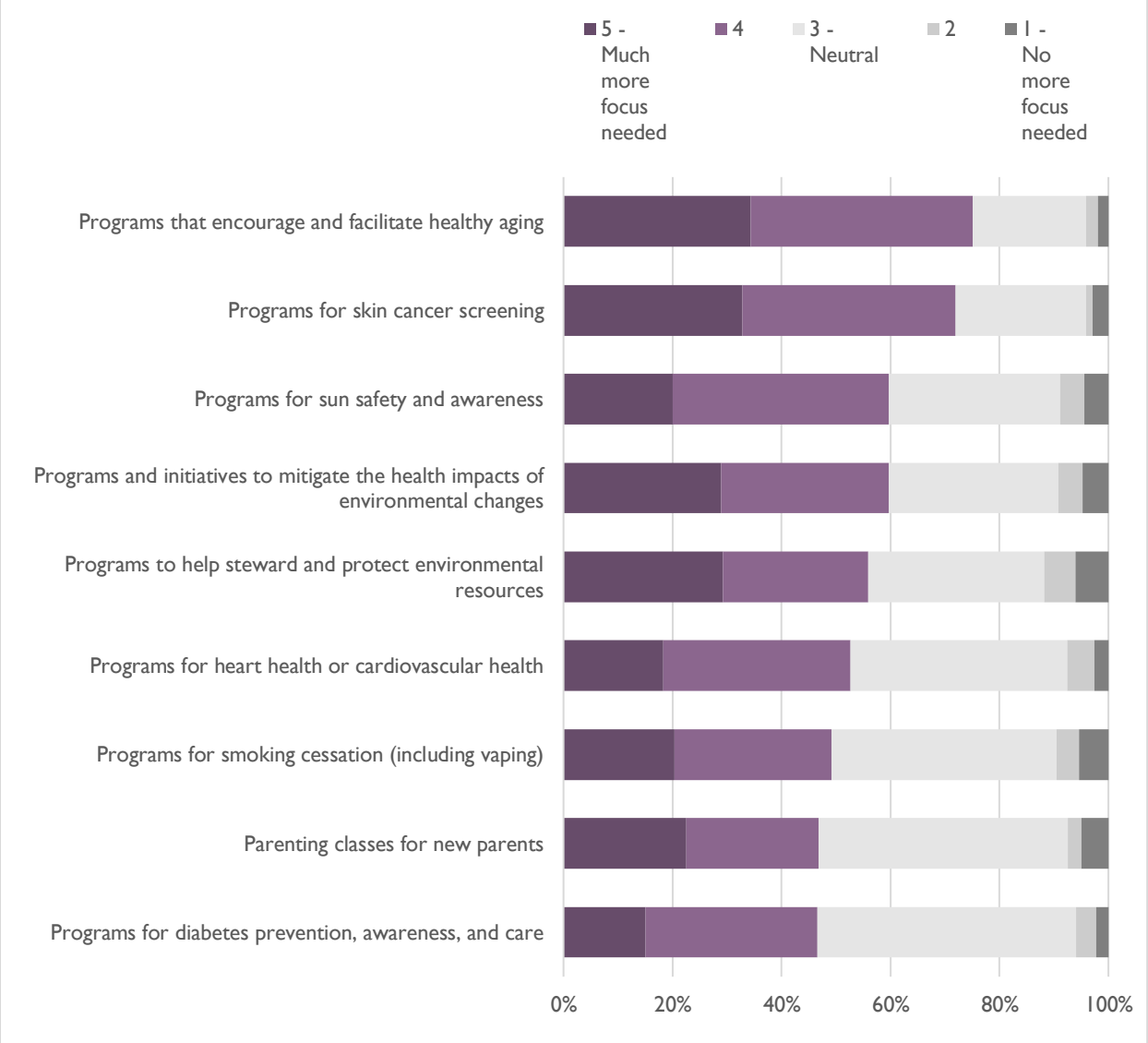
Respondents most commonly identified **primary care services** (85.8%) as in need of more focus (rated a score of four or five on a five-point scale) in terms of general health issues. **Healthcare services for the elderly** (74.6%) and **for adults** (69.8%) were also rated highly.

EXHIBIT 17: ISSUES NEEDING MORE ATTENTION FOR IMPROVEMENT – GENERAL HEALTH



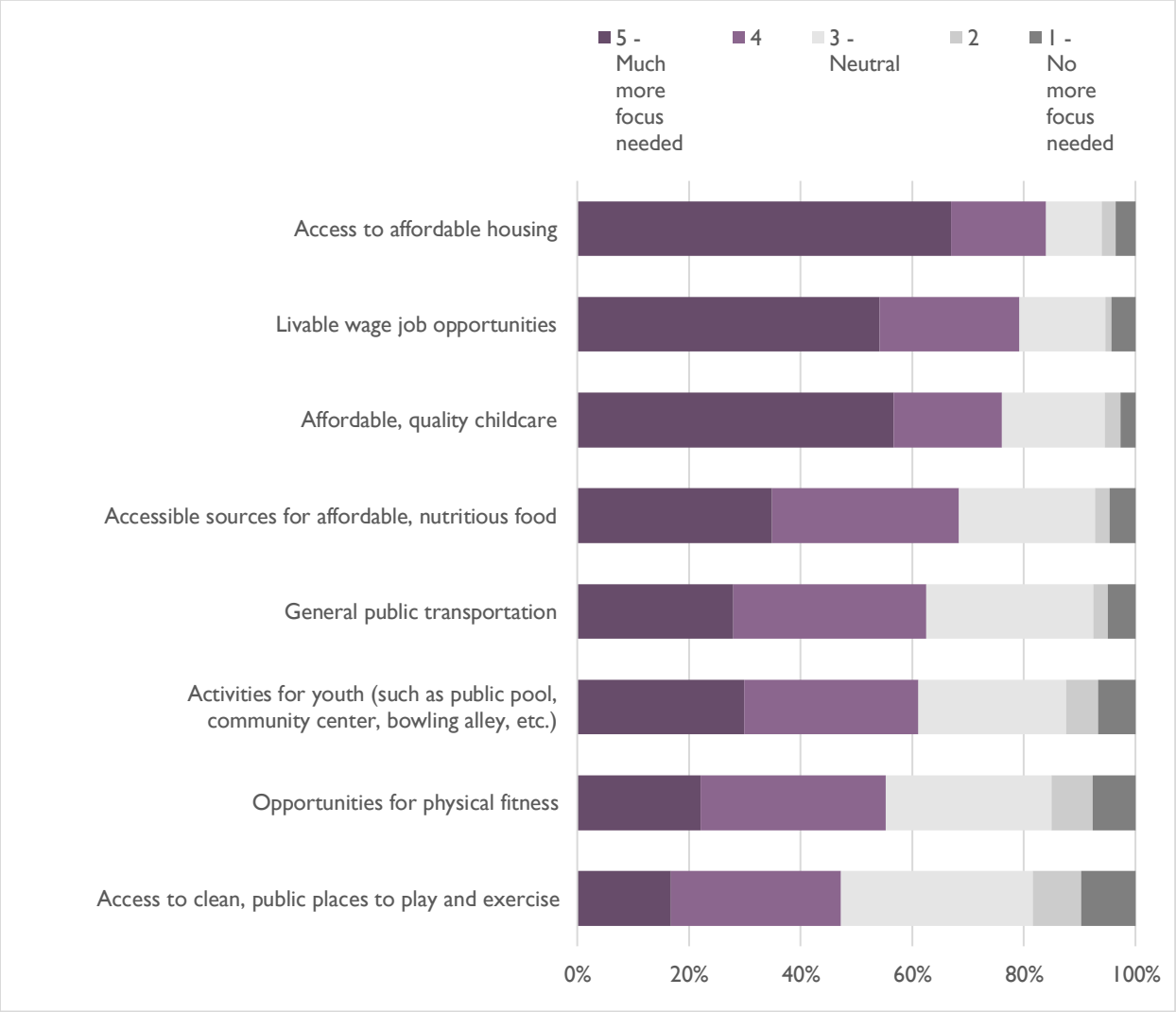
Programs that encourage and facilitate healthy aging (75.1%) and **programs for skin cancer screening** (72.0%) were rated most highly by respondents in terms of health screening and education programs most in need of more attention for improvement.

EXHIBIT 18: PROGRAMS NEEDING MORE ATTENTION FOR IMPROVEMENT – HEALTH SCREENING AND EDUCATION PROGRAMS



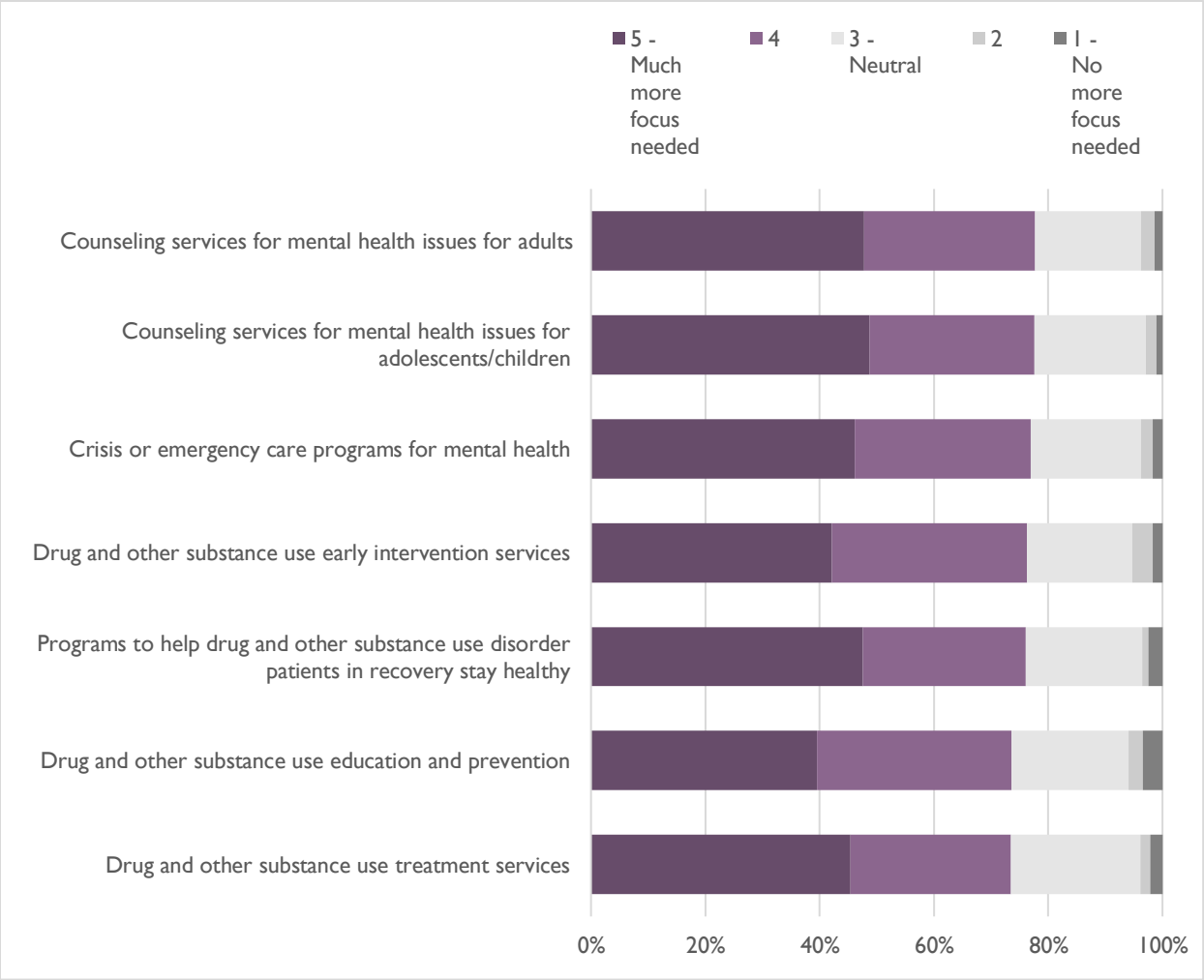
Among community issues, **access to affordable housing** (84.0%), **livable wage job opportunities** (79.3%), and **affordable, quality childcare** (76.1%) were among the highest rated issues needing more attention for improvement according to survey respondents.

EXHIBIT 19: ISSUES NEEDING MORE ATTENTION FOR IMPROVEMENT – COMMUNITY ISSUES



All mental health and substance use issues were rated similarly highly, in the 73.4% to 77.7% range, by respondents in terms of the need for more attention for improvement.

EXHIBIT 20: ISSUES NEEDING MORE ATTENTION FOR IMPROVEMENT –MENTAL HEALTH AND SUBSTANCE USE



About half of respondents (49.2%) reported knowing where to turn for help if they were experiencing a mental health or substance use challenge. The remaining respondents said 'no' (23.8%) or were not sure (27.0%).

EXHIBIT 21: KNOWLEDGE OF WHERE TO TURN FOR HELP

If you were experiencing a mental health or substance use challenge, would you know where to turn for help?	PERCENT OF RESPONDENTS
Yes	49.2%
No	23.8%
I'm not sure	27.0%

Relatively few respondents (3.3%) reported that they themselves had a current unmet mental health or substance use need. One in 10 said they had an adult family member with a current unmet need (9.9%).

EXHIBIT 22: PRESENCE OF UNMET MENTAL HEALTH OR SUBSTANCE USE NEEDS

Do you or your family currently have unmet mental health or substance use needs? (Select all that apply)	PERCENT OF RESPONDENTS
Yes, I have an unmet need	3.3%
Yes, an adult family member has an unmet need	9.9%
Yes, a child family member has an unmet need	4.0%
No	73.3%
I don't know	6.9%
I prefer not to answer	5.0%

More than half of respondents reported experiencing **depression** (54.8%) and/or **anxiety** (52.8%) over the past two years. Slightly smaller proportions reported **grief** (37.3%) and/or **loneliness or isolation** (31.4%). 'Other' challenges cited include addiction and alcoholism, among other issues.

EXHIBIT 23: MENTAL HEALTH CHALLENGES EXPERIENCED IN THE PAST TWO YEARS, BY TYPE

Over the past two years, have you or someone you know experienced any of the following mental health challenges? (Select all that apply)	PERCENT OF RESPONDENTS
Depression	54.8%
Anxiety	52.8%
Grief	37.3%
Loneliness or isolation	31.4%
Trauma	15.8%
Other (please specify)	5.6%

Respondents were most likely to report **asking their doctor's office** (69.6%) and/or **searching online** (61.1%) if they needed help but were unsure where to go. Two in five (41.6%) would **ask a neighbor or friend**. 'Other' responses included reaching out to the Council on Aging or to the police.

EXHIBIT 24: SOURCES OF ASSISTANCE

What would you do if you needed help but were unsure where to go? (Select all that apply)	PERCENT OF RESPONDENTS
Ask my doctor's office	69.6%
Search online	61.1%
Ask a neighbor or friend	41.6%
Look at community message boards or bulletin boards	7.9%
Search newspaper advertisements	3.0%
I don't know where I would go	5.0%
Other (please specify)	8.3%

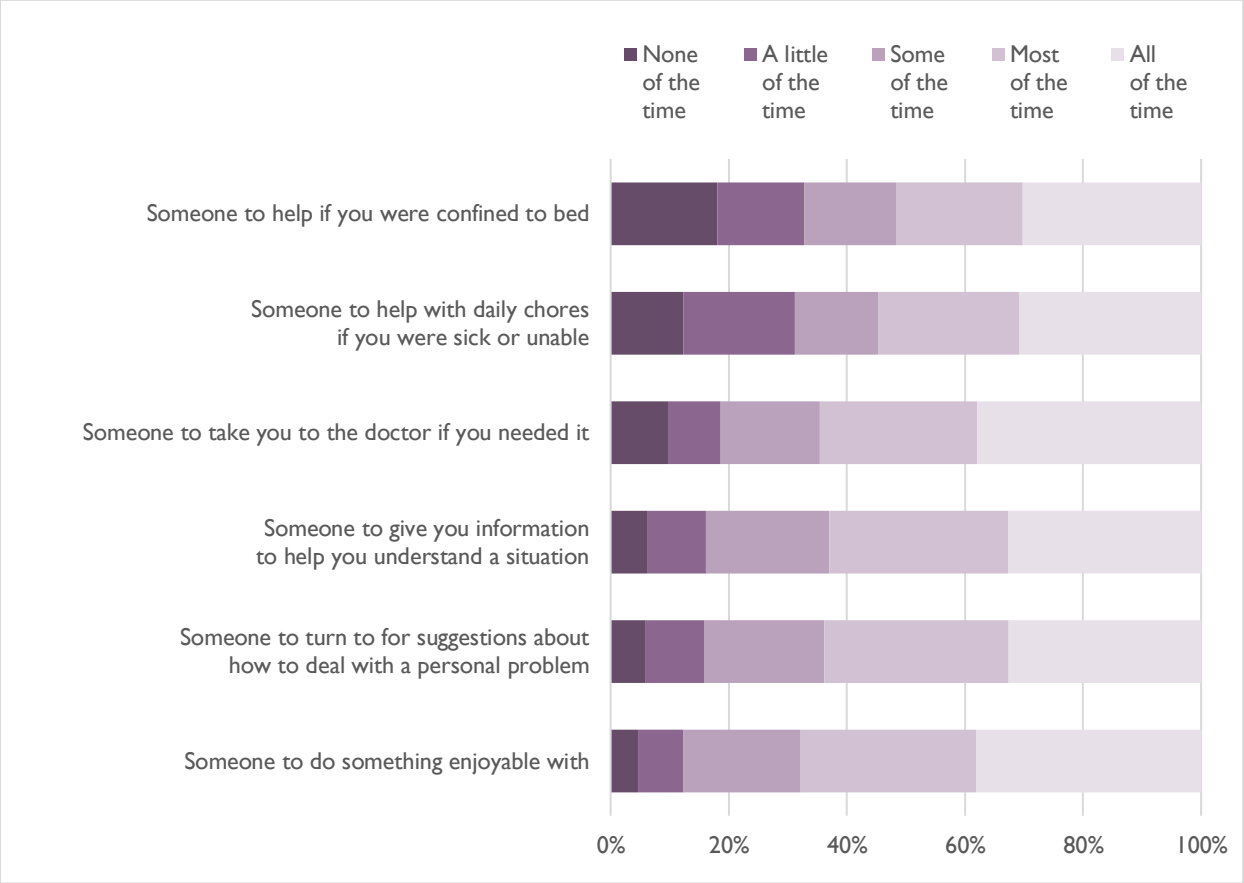
Respondents most commonly reported belonging to a **volunteer group** (37.3%), **church, temple or religious group** (26.1%), and/or **neighborhood association or club** (24.8%).

EXHIBIT 25: ORGANIZATIONAL AFFILIATIONS

Do you belong to any of the following in the community? (Select all that apply)	PERCENT OF RESPONDENTS
Volunteer group	37.3%
Church, temple, or religious group	26.1%
Neighborhood association or club	24.8%
Recreational or sports club team	15.8%
Social organization (such as Lions Club, Masonic organization, etc.)	12.9%
Professional or trade organizations	10.9%
School, university, technical training, or adult education group	9.2%
Youth-focused organizations or groups (such as Boy or Girl Scouts, Boys and Girls Club, etc.)	1.7%

In terms of companionship and assistance, respondents were most likely to report 'none of the time' or 'a little of the time' having **someone to help if they were confined to bed** (32.8%) and/or **someone to help with daily chores if they were sick or unable** (31.1%).

EXHIBIT 26: TYPES OF SUPPORT AVAILABLE, BY FREQUENCY OF AVAILABILITY



Only two in five respondents (41.4%) reported knowing what the local health department is responsible for in the community, and a smaller proportion (30.8%) reported knowing about the county health department. However, three in four (75.1%) reported being interested in learning more about what each type of department does.

EXHIBIT 27: KNOWLEDGE OF, AND INTEREST IN, LOCAL AND COUNTY HEALTH DEPARTMENTS

	PERCENT RESPONDING 'YES'
Do you know what the local health department is responsible for in the community?	41.4%
Do you know what the county health department is responsible for in the community?	30.8%
Would you like to learn more about what the local and county health departments do?	75.1%

Respondents most commonly reported wanting to learn more about health department activities and information via **email newsletter** (62.5%) and/or **town website** (49.6%).

EXHIBIT 28: INTEREST IN HEALTH DEPARTMENT INFORMATION, BY MEDIUM PREFERRED

How would you like to learn more information about the health department efforts, initiatives, and responsibilities? (Select all that apply)	PERCENT RESPONDING 'YES'
Email newsletter	62.5%
Town website	49.6%
Health department website	38.6%
Social media	20.7%
Mailed paper newsletter	16.8%
Local TV programming	3.6%
Other (please specify)	3.2%
N/A - I do not want to learn more	7.5%

If you could change one thing to make your community a better place, what would it be?

SELECTED SUBMISSIONS:

- *A comprehensive community center that can serve all of the Lower Cape*
- *A full gym. The community center is nice but is very focused on Senior Citizens and limited classes for healthy active adults.*

- *Affordable housing and mental health services are at the top of the list.*
- *Affordable housing and quality affordable childcare*
- *Affordable housing to attract health care personnel to support our aging population*
- *Availability of medical professionals. We need more providers. You should not need to wait three months to have a tooth extracted.*
- *Better transportation*
- *Free school lunch, perhaps donations from grocery stores*
- *I think Brewster is lovely as is. I think the financial hardships are my only concerns and I don't have one solution for it. The national and state governments need to tackle inflation issues.*
- *I wish we could be nicer to each other. We are not going to agree on all the issues but it's important that we make everyone feel like they belong and that we treat everyone coming through the office door as part of the community and that we care about their health and well-being as it is personalized for them.*
- *Increase the number of emergency clinics especially during the summer*
- *Less focus on consumerism, less focus and money spent on "celebrations" and frivolous things and pay better wages and encourage people to take responsibility for their health through education and outreach*
- *Lower taxes*
- *More communication*
- *Education related to all things health and mental health empowers people to make changes. Hold these programs at the library where people can begin to access the benefits of that facility and its other offerings.*
- *More primary care access*
- *Overall, I believe our community is open to finding ways to promote health care for all, but many folks get lost in the system*
- *Robust public transportation Cape-wide (analogous to municipal bus systems in cities such as Boston, or Washington, D.C., before they had Metro)*
- *Quality exercise classes for seniors and quality programs for youth.*

Needs Prioritization Process

Discussing the needs with the Leadership Group was essential for prioritizing the needs identified throughout the Community Health Needs Assessment. The needs prioritization session provided the Leadership Group an opportunity to discuss the key findings and categorize which of the identified needs fall within the local health departments' locus of control to address, considering the level of resources available to address each need, as well as the amount of collaboration with other community partners, among other considerations.

The needs prioritization process consisted of two steps.

1

First, an online survey was open for approximately one week to allow each Leadership Group participant to answer the following questions about each of the 19 identified needs as the Health Agent of their town:

1. "How great is the need for additional focus on …?"
2. "What role would your organization play in the effort to address this need in the community?"

Participants were encouraged to provide comments supporting their selection.

2

The second step was the collaborative prioritization session. The Health Agents in the Leadership Group participated in a virtual needs prioritization session to review the 19 community needs identified through the Community Health Needs Assessment process. An overall prioritized list was developed for the entire Lower Cape Cod region, as well as top needs identified for each of the four towns.

While all of these needs are important, the following list of prioritized needs was determined through the Needs Prioritization scoring process, considering the extent of need for additional focus on each topic and the locus of control of the town health departments in Brewster, Chatham, Harwich, and Orleans. The rank order reflects multiple ties among several needs in the list.

LOWER CAPE – OVERALL PRIORITIZED LIST OF NEEDS

Rank	Needs
1.	Enhance presence of town and county health departments in the community.
2.	Substance use early intervention services and prevention programs.
3.	Opportunities to learn about existing resources and services.
4.	Substance use disorder treatment services, including programs to help drug and other substance use disorder patients in recovery stay healthy.
5.	Community programs designed to decrease stigma and increase empathy through education on substance use and other community issues.
6.	Mental health crisis/emergency programs and resources.
6.	Counseling services for children, adolescents, and adults.
7.	Community health programs and outreach focusing on wellness, mental health literacy, and healthy aging education and screening.
8.	Healthcare services for older adults, including in-home care.
9.	Affordable housing and resources to support homeownership, including programs to help with home maintenance costs, utilities, and weatherization.
10.	Available and accessible rental properties for existing and prospective residents.
10.	Low or no-cost recreational programs for residents of all ages.
10.	Access to primary care and preventive health care services for residents of all ages.
11.	Accessible sources for affordable, nutritious food.
12.	Programs that reduce social isolation among seniors.
12.	Affordable and accessible childcare with flexible options for working families.
13.	Transportation options for people needing to go to doctor's appointments.
14.	Transportation options for general travel around the community, including improved bikeability.
15.	Livable wage job opportunities.

The Health Agents of the Leadership Group formed a consensus that many of the needs of the Lower Cape towns are shared and would benefit from collaborative efforts. However, each of these four towns have distinct communities and varying resources. As such, each town prioritized top needs independently, revealing slight differences.

PRIORITIZED LIST OF NEEDS, BY TOWN

● Denotes top prioritized need

Brewster	Chatham	Harwich	Orleans	Needs
●		●	●	Enhance presence of town and county health departments in the community.
●	●	●	●	Substance use early intervention services and prevention programs.
	●	●	●	Opportunities to learn about existing resources and services.
●		●	●	Substance use disorder treatment services, including programs to help drug and other substance use disorder patients in recovery stay healthy.
	●			Community programs designed to decrease stigma and increase empathy through education on substance use and other community issues.
●	●		●	Mental health crisis/emergency programs and resources.
●	●			Counseling services for children, adolescents, and adults.
		●	●	Community health programs and outreach focusing on wellness, mental health literacy, and healthy aging education and screening.
	●			Healthcare services for older adults, including in-home care.
				Affordable housing and resources to support homeownership, including programs to help with home maintenance costs, utilities, and weatherization.
				Available and accessible rental properties for existing and prospective residents.
●				Low or no-cost recreational programs for residents of all ages.
				Access to primary care and preventive health care services for residents of all ages.
		●		Accessible sources for affordable, nutritious food.
				Programs that reduce social isolation among seniors.
				Affordable and accessible childcare with flexible options for working families.
				Transportation options for people needing to go to doctor's appointments.
				Transportation options for general travel around the community, including improved bikeability.
				Livable wage job opportunities.

Conclusion

The Lower Cape Health Community Needs Assessment has identified critical health and social challenges, emphasizing the importance of addressing the social determinants of health to improve community well-being. Key priorities include enhancing access to healthcare, particularly for the aging population, increasing affordable housing options, and strengthening mental health and substance use services.

The Massachusetts State Action for Public Health Excellence grant program is instrumental in supporting these initiatives, fostering collaboration among local health departments and community organizations. Moving forward, it is crucial to leverage the insights from this assessment to implement targeted strategies, ensuring a healthier and more resilient Lower Cape community.

Potential Strategies and Recommendations

Community Education

- Develop and implement outreach programs that engage with residents through local events, health fairs, and mobile health units to increase visibility and accessibility of local health departments.
- Create a centralized online portal, website, or mobile app that provides information on available health and social services.
- Distribute informational brochures and host workshops in community centers and public libraries.
- Launch public education campaigns to change perceptions about substance use and mental health.

Substance Use

- Implement school-based education programs focused on substance use prevention.
- Develop community-wide awareness campaigns on the risks of substance use and available resources.

Mental Health

- Integrate mental health crisis training for first responders and community leaders.
- Increase the number of school-based mental health professionals and services.

Community Wellbeing

- Implement wellness programs that include mental health literacy, healthy aging education, and regular health screenings.
- Develop partnerships among local organizations to host wellness workshops and support groups.

Preventive Health

- Establish Health and Human Services hubs to streamline access to healthcare, social services, and essential resources, addressing physical and behavioral health in addition to critical social determinants of health.
- Implement mobile health units to provide routine services and screenings.
- Provide additional options for community health centers and clinics on Cape Cod past Hyannis.

Community Infrastructure

- Expand and develop mobile volunteer programs that deliver food, provide transportation, and visit and assist isolated seniors.
- Support the establishment of community gardens and farmers' markets that accept food assistance benefits.
- Establish community recreation centers that offer free or low-cost activities for all ages.
- Advocate for policies that increase the availability of affordable housing.
- Develop job training and employment programs to enhance workforce skills and opportunities that simultaneously meet community needs.

Appendices

Appendix A: Supplementary Secondary Research

Demographics

EXHIBIT 29: PROJECTED PERCENT CHANGE IN POPULATION, 2010 TO 2031

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Total Population (2010)	9,830	6,124	12,233	5,902	215,888	6,547,629
Total Population (2022)	10,341	6,606	13,440	6,332	229,436	6,984,205
Percent Change (2010 – 2022)	**+6.7%**	**+7.9%**	**+9.9%**	**+7.3%**	**+6.3%**	**+6.7%**
Total Population (2031)	11,005	6,477	14,428	6,384	242,648	7,376,427
Percent Change (2022 – 2031)	**+6.4%**	**-1.9%**	**+7.4%**	**+0.8%**	**+5.8%**	**+5.6%**

Source: U.S. Census Bureau American Community Survey 2010 One-year Estimates | U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 30: MEDIAN AGE PERCENT CHANGE, 2010 TO 2022

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Median Age (2010)	52.5	56.8	51.8	62.0	48.7	38.7
Median Age (2022)	57.0	64.0	59.0	63.0	54.5	39.8
Percent Change (2010 – 2022)	**+8.6%**	**+12.7%**	**+13.9%**	**+1.6%**	**+11.9%**	**+2.8%**

Source: U.S. Census Bureau American Community Survey 2005-2010 Five-year Estimates | U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 31: POPULATION BY AGE GROUP

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Under Age 18	14.4%	9.7%	12.5%	12.9%	14.5%	19.6%
Age 18 to 64	50.6%	41.5%	52.2%	40.4%	53.8%	63.3%
Age 65 and Over	36.1%	48.8%	35.3%	46.7%	31.6%	17.1%
Age Under 5	1.6%	2.8%	3.4%	2.6%	3.5%	5.0%
Age 5 to 9	3.0%	0.6%	3.7%	2.8%	3.9%	5.2%
Age 10 to 14	5.4%	4.2%	3%	3.3%	4.3%	5.7%
Age 15 to 19	5.8%	3.2%	3.1%	4.8%	4.7%	6.6%
Age 20 to 24	3.4%	6.1%	5.3%	3.8%	5%	7%
Age 25 to 34	9.2%	5.6%	6%	4.2%	9%	14.1%
Age 35 to 44	7.3%	5%	9.3%	7.9%	9.1%	12.6%

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Age 45 to 54	11.8%	8%	9.7%	10%	11.1%	12.8%
Age 55 to 59	6.2%	7%	8.3%	7.9%	8.5%	7.1%
Age 60 to 64	11.3%	8.8%	12.8%	5.9%	9.2%	6.7%
Age 65 to 74	20.3%	22.8%	20.4%	27.7%	18.1%	10%
Age 75 to 84	10.2%	16.4%	9.7%	14.2%	9.3%	4.8%
Age Over 85	4.5%	9.6%	5.2%	4.8%	4.2%	2.3%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 32: POPULATION BY RACE ALONE[22]

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
White	94.9%	92.5%	93.2%	97.3%	87.9%	72.7%
Two or More Races	3.4%	3.9%	3.5%	1.5%	5.2%	8%
Black or African American	0.9%	0.7%	0.9%	0.2%	2.8%	7.1%
Some Other	0.5%	0.2%	2.0%	0.0%	2.2%	5.0%
Asian	0.3%	2.5%	0.3%	0.9%	1.5%	7.0%
American Indian and Alaska Native	0.0%	0.2%	0.0%	0.0%	0.4%	0.2%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 33: POPULATION BY ETHNICITY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Hispanic	2.8%	1.5%	1.9%	1.6%	3.5%	12.6%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 34: POPULATION BY SEX

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Females	49.9%	51.4%	52.1%	55.1%	51.7%	51%
Males	50.1%	48.6%	47.9%	44.9%	48.3%	49%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

[22] Race (Alone) population is defined by the U.S. Census Bureau as people who responded to the question on race by indicating only one race, or the group who reported only one race. Source: https://www.census.gov/glossary/?term=Race%20alone

EXHIBIT 35: LANGUAGE SPOKEN AT HOME (PEOPLE OVER AGE 5)

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
English Only	93.7%	97.5%	93.1%	95.1%	89.4%	75.5%
Spanish	1.3%	0.5%	0.3%	2.2%	2.3%	9.5%
Asian-Pacific Islander	0.8%	0.0%	1.1%	0.7%	0.8%	4.4%
Other Indo-European	4.2%	1.8%	5.3%	1.9%	6.7%	9.1%
Other	0.0%	0.2%	0.1%	0.0%	0.7%	1.5%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 36: FOREIGN-BORN POPULATION[23]

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Naturalized US Citizen	5.2%	3.6%	4.1%	4.2%	5.4%	9.6%
Not US Citizen	1.2%	1.9%	0.9%	0.9%	4.0%	8.0%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 37: LANGUAGE SPOKEN AT HOME (PEOPLE OVER AGE 5)

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Population Living with a Disability	1,223	1,087	1,637	900	31,304	820,525
Age Under 5	0.0%	0.0%	0.0%	0.0%	0.7%	0.8%
Age 5 to 17	6.7%	8.1%	6.8%	6.9%	8.3%	6.3%
Age 18 to 34	10.3%	15.1%	5.2%	8.9%	7.6%	6.8%
Age 35 to 64	7.0%	4.2%	6.4%	7.3%	9.5%	10.5%
Age 65 to 74	8.5%	11.9%	10.7%	14.6%	15.2%	20.1%
Age 75 and Over	40.3%	41.9%	42.8%	34.6%	40.0%	45.8%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

People Living With a Disability

EXHIBIT 38: POPULATION LIVING WITH A DISABILITY, BY TYPE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Vision Difficulty	1.1%	3.9%	1.8%	1.7%	1.9%	1.9%
Hearing Difficulty	4.3%	6.4%	4.4%	5.3%	5.1%	3.1%

[23] Foreign-born population is defined by the U.S. Census Bureau as people who are not U.S. citizens at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as foreign students), humanitarian migrants (such as refugees and asylees), and persons illegally present in the United States. Percentages displayed are out of the full 100% population for each geography (e.g., 7.1% of the U.S. population is naturalized U.S. citizens).

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Cognitive Difficulty	5.5%	4.3%	3.4%	3.5%	4.6%	5.0%
Ambulatory Difficulty	5.1%	8.1%	5.5%	7.6%	6.2%	5.4%
Independent Living Difficulty	5.1%	5.8%	3.8%	5.0%	4.4%	4.4%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 39: POPULATION LIVING WITH A DISABILITY, BY RACE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
American Indian and Alaska Native	ND	0.0%	ND	ND	35.6%	18.8%
White	12.6%	18.2%	12.6%	14.4%	14.3%	12.4%
Two or More Races	0.0%	0.0%	7.1%	7.3%	10.4%	10.9%
Some Other Race	4.3%	0.0%	7.7%	4.3%	9.9%	12.3%
Black or African American	0.0%	0.0%	3.9%	76.1%	7.7%	12.9%
Asian	100%	0.0%	6.4%	0.1%	6.6%	6.2%
Native Hawaiian and Other Pacific Islander	ND	ND	ND	ND	0%	12.1%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 40: POPULATION LIVING WITH A DISABILITY, BY ETHNICITY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Hispanic or Latino	27.1%	0.0%	15.9%	3.0%	11.0%	12.6%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Social Determinants of Health: Economic Stability

EXHIBIT 41: TOTAL HOUSEHOLDS BELOW POVERTY LEVEL

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Total Households Below Poverty Level per household (2022)	6.8%	8.0%	5.2%	10.4%	7.6%	10.8%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 42: INCOME TO POVERTY RATIOS

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
100% to 124%	1.0%	3.5%	1.6%	1.4%	2.1%	2.8%
125% to 149%	1.0%	1.1%	2.6%	2.3%	2.8%	2.8%
150% to 184%	2.8%	1.7%	4.7%	3.8%	4.0%	4.0%
185% to 199%	0.2%	3.0%	1.2%	1.8%	1.8%	1.8%

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
200% and over	88.1%	82.8%	84.8%	80.3%	82.3%	78.6%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 43: PERCENT OF POPULATION LIVING IN POVERTY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
People Below Poverty Level	6.9%	8.0%	5.2%	10.3%	7.0%	9.9%
BY RACE AND ETHNICITY						
American Indian and Alaska Native	ND	0.0%	ND	ND	21.1%	20.5%
Asian	9.7%	0.0%	5.0%	0.0%	8.8%	10.9%
Black or African American	0.0%	9.8%	18.2%	0.0%	8.9%	16.9%
Native Hawaiian and Other Pacific Islander	ND	ND	ND	ND	0.0%	20.0%
Some Other Race	4.3%	0.0%	64.7%	4.3%	17.4%	20.1%
Two or More Races	12.3%	60.9%	9.0%	35.3%	13.7%	16.1%
White	6.8%	5.9%	3.7%	10.1%	6.2%	7.7%
Hispanic or Latino	0.8%	2.0%	13.3%	42.8%	17.5%	21.3%
BY AGE						
Age Under 5	0.0%	0.0%	0.0%	38.1%	10.5%	12.6%
Age Under 18	10.5%	9.4%	1.5%	13.8%	8.5%	11.8%
Age 18 to 64	8.5%	13.0%	6.0%	12.9%	7.2%	9.4%
Age 65 and Over	3.1%	3.2%	5.4%	7.1%	6.1%	9.9%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 44: MEDIAN HOUSEHOLD INCOME PERCENT CHANGE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Median Household Income (2010)	$61,312	$70,114	$58,192	$63,717	$62,501	$65,981
Median Household Income (2022)	$95,845	$83,835	$82,851	$89,375	$90,447	$96,505
Percent Change (2010-2022)	**+56.3%**	**+19.6%**	**+42.4%**	**+40.3%**	**+44.7%**	**+46.3%**

Source: U.S. Census Bureau American Community Survey 2010 One-year Estimates | U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 45: MEDIAN HOUSEHOLD INCOME BY RACE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Asian	ND	ND	ND	ND	$106,600	$118,767

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
White	$96,796	$92,241	$84,491	$88,408	$91,788	$102,701
Other Race	ND	ND	ND	ND	$85,521	$58,832
Two or More Race	ND	ND	$46,053	ND	$80,537	$73,075
American Indian and Alaska Native	ND	ND	ND	ND	$60,370	$60,146
Black or African American	ND	ND	ND	ND	$59,909	$67,044
Native Hawaiian and Other Pacific Islander	ND	ND	ND	ND	ND	$83,090

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 46: MEDIAN HOUSEHOLD INCOME BY ETHNICITY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Hispanic or Latino	$83,860	ND	$36,250	ND	$84,559	$59,292

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 47: EMPLOYMENT BY INDUSTRY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Management	17.0%	17.5%	9.6%	12.5%	11.4%	12.0%
Sales	8.9%	10.0%	11.5%	6.8%	10.2%	8.2%
Office and Administrative Support	9.8%	8.8%	6.8%	6.3%	9.2%	9.1%
Construction and Extraction	7.3%	5.9%	8.2%	4.6%	7.3%	4.1%
Education, Training and Library	8.2%	3.5%	7.6%	8.5%	5.9%	7.1%
Food Preparation and Serving	4.3%	5.6%	4.8%	3.8%	5.8%	4.4%
Business and Finance	2.3%	7.7%	2.4%	6.9%	5.0%	6.7%
Health Diagnosis and Treating Practitioners	3.3%	7.3%	2.5%	9.0%	4.9%	4.7%
Building, Grounds Cleaning, and Maintenance	2.8%	3.6%	3.9%	5.5%	4.3%	2.9%
Personal Care and Service	4.2%	3.5%	2.9%	3.9%	3.0%	2.6%
Transportation	1.2%	1.5%	3.4%	3.5%	2.9%	2.8%
Production	3.8%	0.4%	2.1%	3.1%	2.8%	3.6%
Healthcare Support	2.0%	0.0%	2.7%	0.9%	2.7%	3.2%
Installation, Maintenance, and Repair	4.5%	0.6%	4.1%	0.0%	2.6%	2.1%
Arts, Design, Entertainment, Sports and Media	2.2%	4.0%	4.8%	8.5%	2.5%	2.2%

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Computer and Mathematical	1.3%	3.1%	2.0%	0.4%	2.2%	4.5%
Material Moving	1.9%	3.8%	1.5%	1.0%	2.1%	2.3%
Community and Social Service	1.8%	1.9%	1.6%	2.7%	2.0%	2.0%
Health Technologist and Technicians	0.3%	1.2%	2.2%	0.7%	2.0%	1.8%
Architecture and Engineering	1.2%	2.5%	1.0%	4.0%	1.7%	2.5%
Life, Physical, and Social Science	1.5%	0.7%	0.5%	0.9%	1.4%	2.2%
Legal	0.0%	0.2%	2.5%	2.2%	1.2%	1.4%
Fire Fighting and Prevention	0.9%	0.6%	2.1%	0.4%	1.1%	1.1%
Law Enforcement	0.8%	0.9%	2.7%	0.0%	1.0%	0.8%
Farming, Fishing and Forestry	0.5%	0.3%	0.6%	0.9%	0.5%	0.2%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 48: HOUSEHOLDS RECEIVING SNAP

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Households Receiving Food Stamps/SNAP	5.4%	7.6%	5.7%	5.9%	7.8%	12.9%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 49: OVERALL & CHILD FOOD INSECURITY

	2022		2021		2020		2019		2018		Percent Change 2018-2022	
	Overall (all ages)	Children (less than age 18)	Overall (all ages)	Children (less than age 18)	Overall (all ages)	Children (less than age 18)	Overall (all ages)	Children (less than age 18)	Overall (all ages)	Children (less than age 18)	**Overall (all ages)**	**Children (less than age 18)**
Barnstable County	9.1%	12.4%	6.9%	8.0%	8.6%	12.4%	7.1%	9.6%	7.6%	11.0%	**+19.7%**	**-17.3%**
Massachusetts	10.2%	12.7%	8.1%	8.4%	7.2%	8.8%	8.2%	9.0%	8.9%	10.1%	**+14.6%**	**+1.0%**

Source: Feeding America, Map the Meal Gap Hunger & Poverty in the United States | Map the Meal Gap (feedingamerica.org)

EXHIBIT 50: MIT LIVING WAGE CALCULATIONS BY FAMILY SIZE IN MASSACHUSETTS COUNTIES

County	Living Wage for 2 Adults (1 Working) with 1 Child[24]
Norfolk	$50.81
Nantucket	$49.94
Suffolk	$48.54
Dukes	$45.53
Plymouth	$44.59
Massachusetts	*$44.16*
Barnstable	**$43.91**
Essex	$42.89
Worcester	$38.84
Bristol	$38.77
Hampshire	$38.75
Middlesex	$38.75
Franklin	$37.62
Berkshire	$37.06
Hampden	$35.26

Source: MIT Living Wage Calculator, 2024

[24] Living wage refers to the hourly rate that an individual in a household must earn to support themselves and/or their family, working full-time, or 2080 hours per year.

Social Determinants of Health: Health Care Access and Status

Access

EXHIBIT 51: HEALTH CARE PROVIDER RATIOS (PEOPLE PER PROVIDER), 2023

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Primary Care Physician	3,477:1	2,202:1	560:1	903:1	1,130:1	627:1
Mental Health Provider	470:1	551:1	1,344:1	372:1	444:1	307:1

Source: National Plan & Provider Enumeration System NPI, 2022

EXHIBIT 52: HEALTH CARE PROVIDER RATIOS (PEOPLE PER PROVIDER), 2023

	Barnstable County	MA
Primary Care Physician	1,130:1	627:1
Primary Care Nurse Practitioner	1,334:1	982:1
Dentist	1,434:1	1,208:1
Mental Health Provider	444:1	307:1
Pediatrician	742:1	415:1
OBGYN	5,937:1	3,214:1
Midwife and Doula	1,4841:1	11,804:1

Source: National Plan & Provider Enumeration System NPI, 2022

EXHIBIT 53: INSURANCE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
UNINSURED POPULATION						
Number of Uninsured People	**238**	**38**	**345**	**27**	**6,890**	**185,907**
Under Age 6	0.0%	0.0%	0.0%	0.0%	1.2%	1.2%
Age 6 to 18	1.9%	0%	6.8%	0.0%	1.5%	1.6%
Age 19 to 64	4.2%	1%	3.4%	1.1%	5.1%	3.7%
Over Age 65	0.0%	0.4%	0.5%	0.0%	0.3%	0.4%
Age 18 and Under with a Disability	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%
Age 19 to 64 with a Disability	0.0%	0.0%	0.0%	0.0%	2.3%	3.0%
Uninsured People in Labor Force	4.0%	1.2%	4.0%	1.4%	5.2%	3.5%
TYPES OF INSURANCE						
People with Private Health Insurance[25]	77.4%	78.4%	78.8%	82.9%	76.4%	76.1%

[25] The percentage of people with private and public health insurance add up to greater than 100% due to individuals having multiple health insurance plans. More information can be found here: https://www.census.gov/library/stories/2023/07/multiple-health-coverage-plans-in-2021.html

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
People with Public Health Insurance	51.3%	58.1%	49.4%	55.9%	49.9%	37.8%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Health Status

EXHIBIT 54: RESIDENT BIRTH CHARACTERISTICS

	Low Birthweight (less than 5.5 pounds)	Gestational Diabetes	Adequate Prenatal Care	Public Payment for Prenatal Care	Unmarried
Massachusetts	7.5%	8.5%	78.5%	36.7%	32.7%
Barnstable	5.2%	7.7%	74.9%	54.5%	33.3%

Source: Massachusetts Department of Public Health, Injury Surveillance Program, BCHAP, UMass Donahue Institute, and U.S. Census Bureau American Community Survey. 2023. "Massachusetts Violent Death Reporting System." https://www.mass.gov/doc/2021-mavdrs-suicide-data-table-pdf/download.

EXHIBIT 55: INFANT MORTALITY RATE

	Rate per 1,000 live births	Infant Deaths	Live Births
Massachusetts	*[26]	18	5,133

Source: Ely, Danielle M, and Anne K. Driscoll. 2022. "Infant Mortality in the United States, 2020: Data From the Period Linked Birth/Infant Death File." https://doi.org/10.15620/cdc:120700.

EXHIBIT 56: CHRONIC DISEASE INCIDENCE SUMMARY 2021

	Barnstable County	MA
Arthritis	25.2%	24.0%
Current Asthma	10.8%	11.2%
High Blood Pressure	25.7%	27.4%
Cancer (excluding skin cancer)	6.5%	6.9%
High Cholesterol	31.8%	33.3%
Chronic Kidney Disease	2.5%	2.7%
Chronic Obstructive Pulmonary Disease	5.1%	6.0%
Coronary Heart Disease	4.6%	5.1%
Diagnosed Diabetes	7.2%	8.5%
Obesity	28.9%	28.0%
Stroke	2.3%	2.7%
Depression	23.2%	22.0%

Source: Centers for Disease Control and Prevention | Division of Population Health, PLACES: Local Data for Better Health, https://www.cdc.gov/PLACES

[26] Rate does not meet National Center for Health Statistics standards of reliability; based on fewer than 20 deaths in the numerator.

EXHIBIT 57: HEALTH RISK BEHAVIORS

	Barnstable County	Massachusetts
Current Smoking	13.1%	13.1%
Binge Drinking	19.6%	17.6%
No Leisure-Time Physical Activity	17.7%	21.6%
Sleeping Less than 7 Hours	30.0%	31.3%

Source: Centers for Disease Control and Prevention | Division of Population Health, PLACES: Local Data for Better Health, https://www.cdc.gov/PLACES

EXHIBIT 58: LEADING CAUSES OF DEATH, 2021

Rate per 100,000 People	Barnstable County	Massachusetts
Cancer	282.7	137.4
Heart Disease	271.9	134.0
Accidents / Unintentional Injuries	88.6	60.8
COVID-19	84.8	54.6
Stroke / Cerebrovascular Disease	65.8	25.6
Chronic Lower Respiratory Disease	53.4	26.9
Alzheimer's Disease	47.3	17.7
Parkinson's Disease	31.8	9.1
Kidney Disease	29.3	13.7
Diabetes	24.5	17.3

Source: CDC WONDER Causes of Death, 2021. https://wonder.cdc.gov/

EXHIBIT 59: BIRTH AND DEATH RATES, 2021

	Barnstable County	MA
Birth Rate per 1,000 people	6.4	9.9
Death Rate per 100,000 people	14.2	9.0

Source: CDC WONDER Natality Birth Rate, 2021 https://wonder.cdc.gov/ | CDC WONDER Causes of Death, 2021. https://wonder.cdc.gov/

Behavioral Health

EXHIBIT 60: OPIOID-RELATED OVERDOSE DEATHS, 2019-2023

	2019	2020	2021	2022	2023
Brewster	3	4	3	2	4
Chatham	0	0	0	1	1
Harwich	3	2	1	5	4
Orleans	1	1	1	2	1

Source: Massachusetts Department of Public Health, Number of Opioid-Related Overdose Deaths, All intents by City/Town, Posted: June 2024 https://www.mass.gov/doc/opioid-related-overdose-deaths-by-city-or-town-june-2024-0/download

EXHIBIT 61: ALL SUSPECTED OPIOID-RELATED INCIDENTS, 2022-2023

	2022	2023
Brewster	10	10
Chatham	11	5
Harwich	20	13
Orleans	17	ND

Source: Massachusetts Department of Public Health, MA Opioid-Related EMS Incidents 2018-2023, Posted: June 2024. https://www.mass.gov/doc/emergency-medical-services-data-june-2024-0/download

EXHIBIT 62: QUALITY OF LIFE, 2021

	Barnstable County	Massachusetts
Mental Health not good for 14 or more days	15.8%	15.6%
Physical Health not Good for 14 or More Days	8.8%	9.8%
Fair or Poor Self-Rated Health Status	10.7%	13.2%

Source: Centers for Disease Control and Prevention | Division of Population Health, PLACES: Local Data for Better Health, https://www.cdc.gov/PLACES

EXHIBIT 63: MASSACHUSETTS SUBSTANCE USE AND PERCEPTIONS OF GREAT RISK, 2021 AND 2022

	Age 12+	Age 18+	Age 26+	Age 12-17	Age 18-25
Illicit Drugs					
Illicit Drug Use in the Past Month[27]	20.8%	21.7%	19.5%	10.0%	35.2%
Marijuana Use in the Past Year	28.4%	29.7%	26.7%	13.0%	48.4%
Marijuana Use in the Past Month	19.7%	20.8%	18.7%	7.6%	33.4%
Perceptions of Great Risk from Smoking Marijuana Once a Month	14.7%	14.5%	15.6%	16.7%	7.8%
First Use of Marijuana in the Past Year among Those at Risk for Initiation of Marijuana Use	3.6%	3.4%	1.8%	4.8%	12.7%
Illicit Drug Use Other Than Marijuana in the Past Month	3.7%	3.9%	3.6%	1.9%	5.5%
Cocaine Use in the Past Year	2.4%	2.6%	2.2%	0.2%	5.0%
Perceptions of Great Risk from Using Cocaine Once a Month	61.9%	63.1%	64.6%	48.8%	53.6%
Heroin Use in the Past Year[28]	--	0.8%	0.9%	--	0.3%

[27] Illicit Drug Use includes the misuse of prescription psychotherapeutics or the use of marijuana (including vaping), cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Illicit Drug Use Other Than Marijuana includes the misuse of prescription psychotherapeutics or the use of cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Illicit Drugs Other Than Marijuana excludes respondents who used only marijuana but includes those who used marijuana in addition to other illicit drugs.

[28] Estimates for youths aged 12 to 17 are not available for past year heroin use because past year heroin use was extremely rare among youths aged 12 to 17 in the 2021 and 2022 NSDUHs. As a result, estimates for people aged 12 or older are also not produced.

	Age 12+	Age 18+	Age 26+	Age 12-17	Age 18-25
Perceptions of Great Risk from Trying Heroin Once or Twice	81.1%	83.2%	84.0%	56.3%	77.9%
Hallucinogen Use in the Past Year	3.0%	3.1%	2.3%	1.0%	8.1%
Methamphetamine Use in the Past Year	0.5%	0.6%	0.6%	0.1%	0.4%
Prescription Pain Reliever Misuse in the Past Year[29]	2.7%	2.8%	2.9%	1.7%	2.6%
Opioid Misuse in the Past Year	3.3%	3.4%	3.5%	1.7%	2.9%
Alcohol					
Alcohol Use in the Past Month	53.4%	57.4%	56.7%	8.0%	61.7%
Binge Alcohol Use in the Past Month[30]	23.2%	24.8%	22.8%	4.1%	37.2%
Perceptions of Great Risk from Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week	40.9%	41.5%	42.3%	34.2%	36.6%
Alcohol Use in the Past Month9 (People Aged 12 to 20)	23.2%	--	--	--	--
Binge Alcohol Use in the Past Month (People Aged 12 to 20)	11.5%	--	--	--	--
Perceptions of Great Risk from Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week (People Aged 12 to 20)	34.2%	--	--	--	--
Tobacco Products					
Tobacco Product Use in the Past Month[31]	15.6%	16.7%	17.1%	3.2%	14.0%
Cigarette Use in the Past Month	12.2%	13.1%	13.7%	1.4%	9.5%
Perceptions of Great Risk from Smoking One or More Packs of Cigarettes per Day	72.7%	73.2%	74.0%	66.6%	68.3%

Source: Substance Abuse and Mental Health Services Administration | National Survey on Drug Use & Health State-Specific Tables, 2021 and 2022

[29] Prescription pain relievers are a type of prescription psychotherapeutic. Misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs.

[30] Binge Alcohol Use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

31 Tobacco Products include cigarettes, smokeless tobacco (i.e., snuff, dip, chewing tobacco, or snus), cigars, or pipe tobacco.

EXHIBIT 64: MASSACHUSETTS SUBSTANCE USE DISORDER IN THE PAST YEAR, 2021 AND 2022

	Age 12+	Age 18+	Age 26+	Age 12-17	Age 18-25
Substance Use Disorder	18.3%	19.2%	17.4%	8.1%	29.9%
Alcohol Use Disorder	11.6%	12.3%	11.4%	3.3%	17.9%
Alcohol Use Disorder (People Aged 12 to 20)	6.7%	ND	ND	ND	ND
Drug Use Disorder	9.6%	9.7%	8.1%	8.6%	19.5%
Pain Reliever Use Disorder	1.6%	1.6%	1.8%	0.9%	0.9%
Opioid Use Disorder	2.1%	2.2%	2.4%	0.9%	1.0%

Source: Substance Abuse and Mental Health Services Administration | National Survey on Drug Use & Health State-Specific Tables, 2021 and 2022

EXHIBIT 65: MASSACHUSETTS MENTAL HEALTH MEASURES IN THE PAST YEAR, 2021 AND 2022

	Age 12+	Age 18+	Age 26+	Age 12-17	Age 18-25
Any Mental Illness[32]	ND	23.2%	21.2%	ND	35.2%
Serious Mental Illness[33]	ND	5.9%	4.9%	ND	12.4%
Major Depressive Episode[34]	ND	8.5%	7.0%	19.2%	18.0%
Had Serious Thoughts of Suicide[35]	ND	4.4%	3.0%	12.2%	12.7%
Made Any Suicide Plans	ND	1.2%	0.7%	6.3%	4.2%
Attempted Suicide	ND	0.5%	0.3%	2.9%	2.0%

Source: Substance Abuse and Mental Health Services Administration | National Survey on Drug Use & Health State-Specific Tables, 2021 and 2022

EXHIBIT 66: MASSACHUSETTS YOUTH SUICIDE

	Total	Female	Male
Seriously considering suicide, past year	18.4%	25.1%	11.5%
Making a suicide plan, past year	14.%	17.7%	10.0%
Attempting suicide, past year	7.6%	9.6%	5.5%

Source: Massachusetts Department of Elementary and Secondary Education and Department of Public Health. n.d. "Health & Risk Behaviors of Massachusetts Youth, 2021." *Health and Risk Behaviors of Massachusetts Youth, 2021*. https://www.mass.gov/doc/health-and-risk-behaviors-of-massachusetts-youth-2021/download.

EXHIBIT 67: MASSACHUSETTS ADULT SUICIDE RATES, 2021

[32] Mental Illness aligns with Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criteria and is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder. Estimates of serious mental illness (SMI) are a subset of estimates of any mental illness (AMI) because SMI is limited to people with AMI that resulted in serious functional impairment. These estimates are based on indicators of AMI and SMI rather than direct measures of diagnostic status.

[33] Mental Illness aligns with Diagnostic and Statistical Manual of Mental Disorders, 4th edition criteria and is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder. Estimates of serious mental illness (SMI) are a subset of estimates of any mental illness (AMI) because SMI is limited to people with AMI that resulted in serious functional impairment. These estimates are based on indicators of AMI and SMI rather than direct measures of diagnostic status.

[34] Major depressive episode (MDE) is based on the DSM-5 definition, which specifies a period of at least 2 weeks when an individual experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. There are minor wording differences in the questions in the adult and adolescent MDE modules. Therefore, data from youths aged 12 to 17 were not combined with data from adults aged 18 or older to produce an estimate for those aged 12 or older.

[35] The adult and youth suicide questions are in different sections of the questionnaire and have different response options. Because of this, data from youths aged 12 to 17 were not combined with data from adults aged 18 or older to produce an estimate for those aged 12 or older.

	Total	Female	Male
All ages and races	13.3	4.0	8.5
White, non-Hispanic	10.2	4.7	16.1
Black, non-Hispanic	5.9	ND	10.8
Asian, non-Hispanic	5.5	4.1	7.0
Hispanic	4.8	2.0	7.5
Other/unknown race/ethnicity	8.5	ND	ND

Source: Massachusetts Department of Public Health, Injury Surveillance Program, BCHAP, UMass Donahue Institute, and U.S. Census Bureau American Community Survey. 2023. "Massachusetts Violent Death Reporting System." https://www.mass.gov/doc/2021-mavdrs-suicide-data-table-pdf/download.

EXHIBIT 68: MASSACHUSETTS TEEN BIRTH RATES BY DEMOGRAPHICS, 2021

	Ages 15-17		Ages 18-19		Combined Ages 15-19	
	Number	Percent	Number	Percent	Number	Percent
State Total	314	24.0%	994	76.0%	1,308	100.0%
American Indian/ Alaska Native Non-Hispanic	5	1.6%	6	0.6%	11	0.8%
Asian/ Pacific Islander Non-Hispanic	11	3.6%	16	1.6%	27	2.1%
Black Non-Hispanic	50	16.2%	133	13.5%	183	14.1%
Hispanic	**198**	**64.1%**	**571**	**57.9%**	**769**	**59.4%**
White Non-Hispanic	44	14.2%	253	25.7%	297	22.9%

Source: Massachusetts Department of Public Health, Injury Surveillance Program, BCHAP, UMass Donahue Institute, and U.S. Census Bureau American Community Survey. 2023. "Massachusetts Violent Death Reporting System." https://www.mass.gov/doc/2021-mavdrs-suicide-data-table-pdf/download.

Social Determinants of Health: Social and Community Context

Neighborhoods are important in influencing health and health equity, therefore, policies or actions that focus on neighborhood context can improve health inequities among community members.[36]

EXHIBIT 69: PERCENT OF LAND USE

	Brewster	Chatham	Harwich	Orleans
Agriculture	1.2%	0.5%	2.3%	0.6%
Forest	55.7%	21.6%	47.4%	39.7%
Open Space	6.4%	36.0%	7.8%	14.5%
Recreation	3.9%	1.8%	2.0%	0.6%
Urban	22.1%	31.5%	32.1%	29.2%
Water	10.7%	7.5%	8.4%	14.9%

Source: Massachusetts Environmental Public Health Tracking Community Profile for Barnstable, community-profile (mass.gov)

EXHIBIT 70: CLIMATE CHANGE – VULNERABLE POPULATIONS

	Brewster	Chatham	Harwich	Orleans	MA
Age 65+ Living Alone	9.0%	10.7%	8.8%	11.3%	4.6%

Source: Massachusetts Environmental Public Health Tracking Community Profile for Barnstable, community-profile (mass.gov)

EXHIBIT 71: ENVIRONMENTAL JUSTICE – POPULATIONS AT RISK FROM ENVIRONMENTAL HEALTH HAZARDS

	Brewster	Chatham	Harwich	Orleans	MA
Population residing in a block group where one or more of the EJ criteria is met, compared to the average percentage for all MA communities (using data from the 2010 U.S. Census and the EOEEA)	9.4%	9.1%	3.7%	15.7%	20.8%

Source: Massachusetts Environmental Public Health Tracking Community Profile for Barnstable, community-profile (mass.gov)

36 American Society on Aging. Addressing Health Equity for Older Adults at the Neighborhood Level (2021). generations.asaging.org/healthy-equity-elders-neighborhood-level

Social Determinants of Health: Education

Education is not only about the schools or higher education opportunities within a community, but also includes languages spoken, literacy, vocational training, and early childhood education.[37] Some children live in places with poorly performing schools, and "the stress of living in poverty can affect children's brain development, making it harder for them to do well in school."[38]

EXHIBIT 72: HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Less than 9th Grade	0.3%	0.2%	0.5%	0.1%	1.5%	4.3%
9th to 12th Grade, No Diploma	1.5%	1.5%	1.4%	0.7%	2.6%	4.5%
High School Degree	21.7%	13.0%	23.7%	14.7%	21.4%	22.9%
Some College No Degree	18.0%	16.3%	18.6%	14.0%	18.5%	14.8%
Associates Degree	9.8%	5.9%	10.1%	7.9%	10.0%	7.6%
Bachelor's Degree	23.2%	33.3%	23.8%	33.4%	25.2%	25.1%
Graduate Degree	25.4%	29.9%	21.9%	29.2%	20.9%	20.8%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 73: EDUCATIONAL ATTAINMENT OF BACHELOR'S DEGREE OR HIGHER, BY RACE

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Native Hawaiian and Other Pacific Islander	ND	ND	ND	ND	100%	40.5%
Asian	0.0%	100%	60.0%	89.7%	67.4%	63.4%
White	47.4%	63.6%	48.0%	62.6%	47.6%	48.3%
Two or More Races	89.3%	22.3%	6.4%	36.0%	29.7%	33.5%
Some Other Race	91.3%	100.0%	6.0%	91.3%	23.0%	18.9%
Black or African American	79.2%	34.2%	1.1%	23.7%	20.5%	30.3%
American Indian and Alaska Native	ND	100%	ND	ND	15.2%	24.4%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 74: EDUCATIONAL ATTAINMENT OF BACHELOR'S DEGREE OR HIGHER, BY ETHNICITY

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Hispanic or Latino	34.5%	58.0%	26.9%	29.9%	21.6%	22.4%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

[37] Kaiser Family Foundation. Beyond Health Care: The Role of Social Determinants in Promoting Health & Health Equity (2018). https://www.kff.org/racial-equity-and-health-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/

[38] U.S. Department of Health and Human Services, Healthy People 2030. Social Determinants of Health, Education Access & Quality. https://health.gov/healthypeople/objectives-and-data/browse-objectives/education-access-and-quality

EXHIBIT 75: CHILD CARE CENTERS

	Barnstable County	MA
Number of Child Care Centers	59	2,107

Source: U.S. Census Bureau County Business Patterns 2021. https://www.census.gov/programs-surveys/cbp.html

Social Determinants of Health: Neighborhood & Built Environment

Housing Affordability

EXHIBIT 76: HOUSING COSTS AND HOME VALUES

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Median Household Income	$61,312	$70,114	$58,192	$63,717	$62,501	$65,981
Excessive Renter Housing Costs	55.4%	55.2%	43.7%	54.6%	52.8%	47.4%
Excessive Owner Housing Costs	25.7%	33.7%	31.7%	27.1%	28.7%	26.2%
Owner Occupied Housing Units - Mobile Homes	0.0%	0.0%	0.2%	0.0%	0.3%	1.0%
Renter Occupied Housing Units - Mobile Homes	3.8%	0.0%	0.0%	0.0%	1.4%	0.4%
Homeowner Vacancy Rate	1.1%	1.5%	1.2%	1.0%	1.3%	0.7%

Source: U.S. HUD CHAS 2015-2019 | U.S. Census Bureau American Community Survey 2010 One-year Estimates | U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 77: MEDIAN HOME VALUE

	Barnstable County	MA
Owner-Occupied Units	$519,100	$483,900

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 78: FAIR MARKET RENT (FMR), BARNSTABLE COUNTY

	0 Bedrooms	1 Bedrooms	2 Bedrooms	3 Bedrooms	4 Bedrooms
Barnstable County	$1,401	$1,553	$2,044	$2,501	$2,781

Source: U.S. Department of Housing and Urban Development HOME Rent Limits 2023

Housing Insecurity

EXHIBIT 79: NATIONAL LOW INCOME HOUSING COALITION HOUSING WAGE, 2023

	Barnstable County[39]	MA
Two-bedroom fair market rent (FMR) [40]	$2,044	$2,165
Hourly wage necessary to afford two-bedroom FMR	$39.31	$41.64
Annual income needed to afford two-bedroom FMR	$81,760	$86,613

Source: National Low Income Housing Coalition, Out of Reach 2023

EXHIBIT 80:HOUSEHOLD COMPOSITION

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Household with Children	18.5%	12%	16.5%	15.3%	19.1%	28.5%
Grandchildren	1.7%	2.3%	0.7%	0.5%	2.6%	3.1%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

Transportation and Internet Access

EXHIBIT 81: TRANSPORTATION

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Mean Travel Time to Work (in minutes)	23.2	22.9	21.1	30.6	25.0	29.4
Workers Commuting by Public Transit	1.4%	3.4%	0.0%	0.4%	1.2%	7.6%
Workers who Drive Alone to Work	80.4%	62.7%	78.8%	69.8%	74.7%	64.2%

Source: U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

EXHIBIT 82: BROADBAND

	Brewster	Chatham	Harwich	Orleans	Barnstable County	MA
Household Without Internet Access	3.3%	7.1%	4.8%	3.2%	5%	7.1%
Number of Internet Providers (2021)					11	39

Source: Federal Communications Commission Fixed Broadband Deployment Data 2021 | U.S. Census Bureau American Community Survey 2018-2022 Five-year Estimates

[39] Barnstable Town MSA which includes Barnstable County, Barnstable Town city, Bourne town, Brewster town, Chatham town, Dennis town, Eastham town, Falmouth town, Harwich town, Mashpee town, Orleans town, Provincetown town, Sandwich town, Truro town, Wellfleet town, Yarmouth town. Source: Massachusetts_2023_OOR.pdf (nlihc.org)

[40] Fiscal Year 2023 Fair Market Rent

Appendix B: Stakeholder Interview Guide

Lower Cape Cod CNA Project

Good morning [or afternoon]. My name is [Interviewer Name] from Crescendo Consulting Group. We are working with the Barnstable County Department of Health and Environment to conduct a community health needs assessment of the towns on Lower Cape Cod. Thank you for taking the time to speak with me today.

The purpose of this conversation is to learn more about the strengths and resources in the community, as well as collecting your insights regarding community health and related service needs. Specifically, we're interested in learning about the ways people seek services, the challenges they have, and your thoughts about equal access to health care.

I will be taking notes, but please **consider our conversation to be confidential. Your name will not be attached to anything you say.**

Do you have any questions for me before we start?

Introductory Questions

1. Please tell me a little about yourself; what you like about the community; and/or how you generally interact with the local community (i.e., what does your organization do?)
2. Overall, if you had to pick the top two or three challenges or things people struggle with in your community, what comes to mind? *[PROBE: behavioral health, access to health care, housing, etc.]*

Access to Care and Delivery of Services

3. What, if any, health care services are difficult to find and/or access? And why?

   [PROBE (As needed): Quality primary care and/or specialty care availability (Services for adults, children & adolescents), Specialty care services, Maternal and prenatal care for expectant mothers Other OB/GYN services, Senior Services (PROBE: hospice, end-of-life care, specialists, etc.)., Post-COVID-19/impacts of COVID-19 care, Dental]

4. What barriers to services exist, if any?

   [PROBE (As needed): Financial, insurance, transportation, cultural incompatibility, wait times, etc.]

Health, Vulnerable Populations and Health Equity

People often think of the health care system as the key driver of health and health outcomes. But in this conversation, we'd like to define **health as a state of complete physical, mental, and social well-being, not simply the absence of disease or infirmity.** In this view, health includes other factors like education,

neighborhood physical environments, climate change, employment, and other factors, as well as access to health.

5. What factors do you see as important drivers of individual and community health?
6. Using a broad definition of health that includes those factors other than physical health, how would you describe the community's health overall?
7. What, if any, local populations are especially vulnerable and/or underserved in your community?
8. Would you say health care services are equally available to everyone in the community regardless of gender, race, age, or socioeconomics?

   [PROBE (As needed): veterans, youth, immigrants, LGBTQ+ populations, people of color, older adults, people living with disabilities]
9. How can the health of the community be improved, especially with these vulnerable populations?

Social Determinants (Top non-healthcare service needs)

10. From your perspective what are the top three non-health-related needs in the community and why?

    [*PROBE LIST (As needed)*: *Affordable housing, Services for people experiencing homelessness, Food insecurity and access to healthy food, Childcare, Transportation, Internet and technology access, Employment and job training opportunities, Others.]*

Magic Wand

11. If there was one issue that you personally could change about community health in the area with the wave of a magic wand, what would it be?
12. Is there anything else you would like to share about the community?

Thank you for your time and participation!

RESEARCHER FOOTNOTES: Bring up each of the topics and include probes and subcategories in the dialogue as needed. Not all topics may be covered in all interviews. Discussion content will be modified to respond to the interviewees' professional background and availability of time during the interview.

Appendix C: Community Survey for Lower Cape Cod

BARNSTABLE COUNTY
CAPE COD REGIONAL GOVERNMENT

The Barnstable County Department of Health and Environment and the local health departments are conducting a Community Health Needs Assessment within the towns of Lower Cape Cod (Brewster, Chatham, Harwich, and Orleans).

The Community Health Needs Assessment helps to learn more about community health and issues that need more focus and attention. This short survey is designed to learn your thoughts and ideas on these important topics. Please take this survey if you live or work in or around the Lower Cape community. ***This survey is anonymous and any comments will be kept confidential.***

1. Please select the town in which you live and/or work:
   - ☐ Brewster
   - ☐ Chatham
   - ☐ Harwich
   - ☐ Orleans
   - ☐ Other (please specify): _____

Access to Health Care

2. Do you have a family doctor or a place where you go for routine care?
   - ☐ Yes, family doctor, family health center, or clinic
   - ☐ Yes, emergency room
   - ☐ Yes, Walk-in urgent care
   - ☐ No
   - ☐ Other (please specify): _____

3. In the past two years, has there been one or more occasions when you needed medical care or mental/behavioral health care but were NOT able to get it?
   - ☐ Yes
   - ☐ No (Skip to Question 5)

4. What prevented you from accessing health care or menta health services when you needed it? (Select all that apply)
   - ☐ Long wait times to see a provider
   - ☐ Lack of transportation
   - ☐ Doctor's office is too far from my house
   - ☐ Lack of health insurance
   - ☐ Lack of money / ability to pay
   - ☐ Did not feel comfortable with available providers
   - ☐ Providers did not speak my language
   - ☐ Concern about immigration status
   - ☐ Other (please specify):

     _____

General Health

5. On a scale of 1 (no more focus needed) to 5 (much more focus needed) which of the following **general health** and related issues do you feel need more attention for improvement?

GENERAL HEALTH	No more needed 1	2	Neutral 3	4	Much more needed 5	Not Applicable
Transportation services for people needing to go to doctor's appointments or the hospital						
Primary care services (such as a family doctor or other provider of routine care)						
Emergency care and trauma services						
Urgent care or walk-in clinics						
Affordable healthcare services for individuals or families with low income						
Services to help people learn about, and enroll in, programs that provide financial support (including insurance) for people needing healthcare						
Special care (such as caseworkers or navigators) for people with multiple health conditions						
Healthcare services for youth						
Healthcare services for adults						
Healthcare services for the elderly						
Women's health services / prenatal care / reproductive health services						

6. On a scale of 1 (no more focus needed) to 5 (much more focus needed), which of the following **health screening and education programs** would you like to see more of in the community?

SCREENING AND EDUCATION PROGRAMS	No more needed 1	2	Neutral 3	4	Much more needed 5	Not Applicable
Programs for diabetes prevention, awareness, and care						
Programs for heart health or cardiovascular health						
Programs for smoking cessation (including vaping)						
Programs to help steward and protect environmental resources						
Programs and initiatives to mitigate the health impacts of environmental changes						
Programs for skin cancer screening						

SCREENING AND EDUCATION PROGRAMS	No more needed 1	2	Neutral 3	4	Much more needed 5	Not Applicable
Programs for sun safety and awareness						
Programs that encourage and facilitate healthy aging						
Parenting classes for new parents						

Community Issues and Concerns

7. On a scale of 1 (no more focus needed) to 5 (much more focus needed) which of the following **community issues** do you feel need more attention for improvement?

COMMUNITY ISSUES	No more needed 1	2	Neutral 3	4	Much more needed 5	Not Applicable
Accessible sources for affordable, nutritious food						
General public transportation						
Access to affordable housing						
Affordable, quality childcare						
Access to clean, public places to play and exercise						
Opportunities for physical fitness						
Livable wage job opportunities						
Activities for youth (such as public pool, community center, bowling alley, etc.)						

8. Thinking about community health in general, please rate each statement below on a scale of 1 (strongly disagree) to 5 (strongly agree).

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	I Don't Know
My community can work together to improve its health						
My community has the resources to improve its health						
My community works together to make positive change for health						
I know my neighbors will help me stay healthy						

9. What are challenges in your community that may impact overall health and wellbeing that you think are important for us to know?

10. If you could change one thing to make your community a better place, what would it be?

Mental Health

11. On a scale of 1 (no more focus needed) to 5 (much more focus needed), which of the following **mental health and substance use** issues do you feel need more attention?

BEHAVIORAL HEALTH	No more needed 1	2	Neutral 3	4	Much more needed 5	Not Applicable
Crisis or emergency care programs for mental health						
Counseling services for mental health issues for adults						
Counseling services for mental health issues for adolescents/children						
Drug and other substance use education and prevention						
Drug and other substance use early intervention services						
Drug and other substance use treatment services						
Programs to help drug and other substance use disorder patients in recovery stay healthy						

12. If you were experiencing a mental health or substance use challenge, would you know where to turn for help?
    - ☐ Yes
    - ☐ No
    - ☐ I'm not sure

13. Do you or your family currently have unmet mental health or substance use needs? (Select all that apply)
    - ☐ Yes, I have an unmet need
    - ☐ Yes, an adult family member has an unmet need
    - ☐ Yes, a child family member has an unmet need
    - ☐ No
    - ☐ I don't know
    - ☐ I prefer not to answer

14. Over the past 2 years, have you or someone you know experienced any of the following mental health challenges? (Select all that apply)
    - ☐ Depression
    - ☐ Anxiety
    - ☐ Loneliness or isolation
    - ☐ Grief
    - ☐ Trauma
    - ☐ Other (please specify): _____

Social Connectedness

15. What would you do if you needed help but were unsure where to go?
    - ☐ Ask a neighbor or friend
    - ☐ Ask my doctor's office
    - ☐ Search online
    - ☐ Search newspaper advertisements
    - ☐ Look at community message boards or bulletin boards
    - ☐ I don't know where I would go
    - ☐ Other (please specify): _____

16. Do you belong to any of the following in the community?
    - ☐ Church, temple, or religious group
    - ☐ Social organization (such as Lions Club, Masonic organizations, etc.)
    - ☐ Neighborhood association or club
    - ☐ Volunteer group
    - ☐ Recreational or sports club team
    - ☐ School, university, technical training, or adult education
    - ☐ Professional or trade organizations
    - ☐ Youth-focused organizations or groups (such as Boy or Girl Scouts, Boys and Girls Club, etc.)

17. People sometimes look to others for companionship, assistance or other types of support. How often is each of the following kinds of support available to you if you need it?

	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Not Applicable
Someone to take you to the doctor if you needed it						
Someone to help with daily chores if you were sick or unable						
Someone to help if you were confined to bed						
Someone to do something enjoyable with						
Someone to give you information to help you understand a situation						
Someone to turn to for suggestions about how to deal with a personal problem						

Health Department Information Sharing

18. Do you know what the town health department is responsible for in the community?
    - ☐ Yes
    - ☐ No
19. Do you know what the county health department is responsible for in the community?
    - ☐ Yes
    - ☐ No
20. Would you like to learn more about what the local and county health departments do?
    - ☐ Yes
    - ☐ No
21. How would you like to learn more information about the health department efforts, initiatives, and responsibilities? (Select all that apply)
    - ☐ Email newsletter
    - ☐ Mailed paper newsletter
    - ☐ Local TV programming
    - ☐ Social media
    - ☐ Health department website
    - ☐ Town website
    - ☐ N/A – I do not want to learn more
    - ☐ Other (please specify): _____
22. Do you have any recommendations about ways for the health departments to increase their presence and involvement in the community?

A Little About You

Demographics

23. What is your age?
    - ☐ Less than 18 years old
    - ☐ 18 – 24
    - ☐ 25 – 34
    - ☐ 35 – 44
    - ☐ 45 – 54
    - ☐ 55 – 64
    - ☐ 65 – 74
    - ☐ More than 75 years old
    - ☐ I prefer not to answer

24. To which gender identity do you most identify?
    - ☐ Female
    - ☐ Male
    - ☐ Transgender Female
    - ☐ Transgender Male
    - ☐ Gender Non-Binary
    - ☐ My gender identity is not listed
    - ☐ I prefer not to answer

25. What is your sexual orientation?
    - ☐ Heterosexual
    - ☐ Gay/Lesbian
    - ☐ Bisexual/Pansexual
    - ☐ My sexual orientation is not listed
    - ☐ I prefer not to answer

26. What is your race? (Check all that apply)
    - ☐ White or Caucasian
    - ☐ Black or African American
    - ☐ Asian
    - ☐ Native American or Alaska Native
    - ☐ Native Hawaiian or other Pacific Islander
    - ☐ Another race
    - ☐ I prefer not to answer

27. Are you of Hispanic, Latino, or other Spanish origin?
    - ☐ Yes
    - ☐ No
    - ☐ I prefer not to answer

28. What is the highest degree or level of school you have completed? (If you're currently enrolled in school, please indicate the highest degree you have received.)
    - ☐ Less than a high school diploma
    - ☐ High school degree or equivalent (such as GED/HiSET)
    - ☐ Some college, no degree
    - ☐ Associate degree
    - ☐ Bachelor's degree
    - ☐ Master's degree
    - ☐ Professional of doctorate degree (such as MD, DDS, DVM, PhD)
    - ☐ I prefer not to answer

29. Which of the following ranges best describes your total annual household income in the past year?
    - ☐ None
    - ☐ Under $25,000
    - ☐ $25,000 - $49,999
    - ☐ $50,000 - $75,999
    - ☐ $75,000 - $99,999
    - ☐ $100,000 - $124,999
    - ☐ $125,000 – $149,999
    - ☐ $150,000 - $199,000
    - ☐ $200,000 or more
    - ☐ Unknown
    - ☐ I prefer not to answer

30. Do you have any of the following disability / ability?
    - ☐ A sensory impairment (vision or hearing)
    - ☐ A learning disability (i.e., ADHD, dyslexia)
    - ☐ A mobility impairment
    - ☐ A mental health disorder
    - ☐ A long-term medical illness (i.e., epilepsy, cystic fibrosis)
    - ☐ A temporary impairment due to illness or injury (i.e., broken ankle, surgery)
    - ☐ A disability or impairment not listed
    - ☐ I do not identify with a disability or impairment
    - ☐ I prefer not to answer

Household Characteristics

31. Do you live in a single-parent household?
    - ☐ Yes
    - ☐ No

32. Do you live in a multi-generation household or in a home with three or more generations living together (such as grandparents, kids, and grandkids)?
    - ☐ Yes
    - ☐ No

33. In the past two years, have you had a temporary housing situation (such as a winter rental that becomes unavailable in the summer)?
    - ☐ Yes
    - ☐ No

Appendix D: Selected Community Survey Open-Ended Question Responses

What are the challenges in your community that may impact overall health and well-being that you think are important for us to know?

"Lack of Primary Care doctors and nurse practitioners (I have had 3 Primaries in 2 years).

Our elders need more access to transportation on evenings and weekends for occasional social events. The ones who need to attend these activities the most have limited transportation options. We need more safe bike lanes and sidewalks for general transportation and for exercise.

Affordable access to healthcare for all.

Lack of affordable housing and lack of adequately paying lower/middle income jobs, and lack of affordable childcare are in crisis mode. Lack of primary care doctors is a major issue as well as mental health services.

Transportation to locations requiring surgery from lower Cape (i.e. eye/cataract surgery in Sandwich) which local senior centers don't offer. After surgery (even from hospital) a driver is needed to bring patient home...not everyone has friends or family to help.... who do we call???

Lack of affordable housing. Not enough MD's available primary care and diabetic endocrinology needed.

Bicycle paths; wheelchair paths. It is just impossible to get around Brewster without a car.

Lack of affordable housing. Not enough primary providers available.

Community Center would address many of the needs.

REAL lack of PCP in this area.

Less use of pesticides and fertilizers on lawns and golf courses.

More resources for child care, elder care.

“There's absolutely no specialists on Cape Cod. No transportation off the cape. No telehealth that takes insurance (MassHealth).

We need a better senior center with more programming and outreach.

Alcoholism and mental illness and lack of services for both [is a challenge].

Available primary care physicians are difficult to get and can take months to find.

I worry about safety assistance/procedures in storms related to climate change, as in hurricanes due to warming oceans.

Lack of access to reproductive health and abortion services for women.

Affordable housing significantly impacts the amount of providers who can afford to live here and provide needed care. Access to providers is a significant barrier to all areas of needed care.

Water quality protection. Ban herbicides and pesticides. Less lawn, more pollinators.

Social isolation of seniors, particularly in winter.

Better access to reproductive health care, including abortion services is really, really needed. As is timely, nearby access to beds/treatment for substance abuse recovery.

Killing and eliminating ticks Testing ticks Educated doctors on Lyme

Limited or no PCP availability. No urgent care facility locally except for 3 summer months in Orleans CCCH.

Sidewalks are needed for walking safely.

Cost of living, cost of housing, aging population means that health services for those of reproductive age and children are harder to access. Food is expensive. Most towns don't have a community center making access to fitness and socializing in a third space hard. Lack of third spaces. Lack of reliable/consistent public transportation that is efficient.

Access to transportation to Boston for care that is unavailable on Cape.

“It is extremely difficult to find a Dr, or dentist that is accepting new patients. There are 2 year waiting lists! Need to incentivize Drs to want to live and work on the Cape.

Access to a public exercise facility.

If you could change one thing to make your community a better place, what would it be?

A comprehensive community center that can serve all of the Lower Cape.

Access to mental health services.

Add an extensive network of bike lanes and sidewalks. We should be encouraging young people to exercise as much as possible for their health.

Add an Urgent Care Center.

Affordable housing and mental health services are at the top of the list.

Affordable housing to attract health care personnel to support our aging population. Control of absentee owners who rent their homes at high fees for 2 months out of the year. Support for ADLs. or small homes. that employ universal design. More training of nurses and aides at CCCC. Better system for enabling immigrants to attain green cards and citizenship to combat worker shortages in all areas.

Bicycle paths.

Build more affordable housing.

Easy access to PCP.

Healthy opportunities for all ages.

Housing and PCP access! More collaborative efforts of the town to push local resources to the community. Integrating general community health workers into the community not just health centers, hospitals and police departments.

Improved public transportation.

More affordable housing. I want to live in a community of all ages and diversity. I’m an elder. How can I help younger families?

More community support services.

More competition in healthcare.

“More diversity and better use of available housing

More local health care clinics with primary care doctors available when needed.

More primary care doctors.

More reasonable housing, medical, and dental costs. A more nuanced approach to healthy eating habits.

More services for serious surgery at Cape Cod Hospital.

Place restrictions on short-term rentals.

Provide more affordable housing for young families.

Reduce light after dark. It would have a major impact on the environment e.g. birds and insects.

Rent control, limits on third/fourth/fifth ownership of housing, vacancy tax for unoccupied or limited-ly occupied houses. Real estate transfer tax for properties over $1 million. The rest of it doesn't matter if no one can afford to live here.

Trauma Emergency Services closer.

Do you have any recommendations about ways for the health departments to increase their presence and involvement in the community?

Blood pressure clinics.

Integrate with other town and county leaders and departments; do blood pressure and sugar checks at the fire department; provide educational sessions i.e. new septic.

Free events such as skin cancer screening, weight loss support, and/or diabetes testing.

Offer free classes online or in person.

Newsletter. Visit & set up information tables at community events, senior centers, etc.

Start early in the schools and continue engagement in the schools through high school graduation.

Community events, programs, and education. Partner with health service providers. Educate people through numerous outlets. Create recordings of events, make house calls.