For discussion or questions about this report, please contact the Community Benefits Department at Cape Cod Healthcare at communitybenefits@capecodhealth.org

Cape Cod Healthcare extends a special thanks to the residents, public health experts, and health and human service organizations from across Barnstable County for their participation in the community health needs assessment project.
**Community Health Needs Assessment: Purpose and Background**

Cape Cod Hospital, Falmouth Hospital and their parent organization Cape Cod Healthcare (CCHC) are the leading providers of healthcare services for residents and visitors of Cape Cod. With more than 450 physicians, 5,000 employees and 800 volunteers, CCHC is the Cape’s main provider of acute care, primary care, specialty care, homecare and hospice services, skilled nursing, assisted living and rehabilitation services, Cape-based laboratory services, blood donation programs, and numerous community health programs.

CCHC’s mission is to coordinate and deliver the highest quality, accessible health services, which enhance the health of all Cape Cod residents and visitors. Through a robust continuum of hospital-based programs and community benefits activities, CCHC invests more than $21 million annually in regional community health initiatives. CCHC regularly conducts community health needs assessments to identify the significant health needs in Barnstable County and integrates findings into community benefit and hospital planning activities.

Guidelines established by the Massachusetts Attorney General and Internal Revenue Service requirements included in the Patient Protection and Affordable Care Act (ACA) provide a framework to conduct health needs assessments and develop implementation strategies. These strategies guide how the hospitals, in collaboration with other regional health and social service providers, will address the significant health needs of Barnstable County residents.

The purpose of the community health needs assessment is to:

1. **Identify health needs** through analysis of local, state and national health indicator data,
2. **Engage key stakeholders** through interviews and community forums for community members, public health experts, and health and human service providers that serve vulnerable, disadvantaged and medically underserved residents, and
3. **Select significant health issues and identify implementation strategies** based on the frequency, size, scope, and magnitude of the issues and the hospital and community resources available to address the issues.

The FY2014–FY2016 Cape Cod Hospital and Falmouth Hospital Community Health Needs Assessment Report and Implementation Plan which was released in September of 2013 precedes this report and served as an important guidepost for the project. A copy of the report can be downloaded from [www.capecodhealth.org](http://www.capecodhealth.org).
Project Approach and Methodology

Cape Cod Hospital (CCH) and Falmouth Hospital (FH) share the service area of Barnstable County and therefore jointly conduct a Community Health Needs Assessment (CHNA). The shared goals of the needs assessment project are to:

- Monitor regional health data and maintain an inventory of available resources,
- Engage and foster dialogue amongst hospital stakeholders,
- Promote partnerships between the hospitals and community organizations,
- Facilitate the development of multi-year implementation strategies to guide hospital community health initiatives and community investments to improve health, and
- Fulfill MA Attorney General and Internal Revenue Service requirements for non-profit hospitals.

This CHNA project was conducted in three phases:

1. Collection of health indicator data and community input,
2. Prioritization of health needs and community resource analysis, and
3. Development of the CHNA report and implementation strategies.

The timetable below outlines CHNA project activities conducted in 2015 and 2016.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timeframe</th>
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<tbody>
<tr>
<td>Collected and analyzed local, state, and national health indicator data</td>
<td>September-December 2015</td>
</tr>
<tr>
<td>Interviewed public health experts and organizations serving low income</td>
<td>October-November 2015</td>
</tr>
<tr>
<td>vulnerable, disadvantaged, and medically underserved residents</td>
<td></td>
</tr>
<tr>
<td>Conducted Cape-wide Community Forums</td>
<td>December 2015</td>
</tr>
<tr>
<td>Conducted Cape-wide Health and Human Services Provider Forums</td>
<td>January 2016</td>
</tr>
<tr>
<td>Analyzed data and community input</td>
<td>January-March 2016</td>
</tr>
<tr>
<td>Cataloged health care facilities and resources within the community</td>
<td>April 2016</td>
</tr>
<tr>
<td>Developed health priorities and implementation strategies</td>
<td>April-May 2016</td>
</tr>
<tr>
<td>CCHC Board of Trustees approved report findings and implementation</td>
<td>June 2016</td>
</tr>
<tr>
<td>strategies</td>
<td></td>
</tr>
<tr>
<td>Finalized publication of CHNA report and implementation plan</td>
<td>July-August 2016</td>
</tr>
<tr>
<td>Publicly distributed CHNA report and implementation plan</td>
<td>September 2016</td>
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</table>
Over 20 data sources were utilized to collect Barnstable County and town-level health statistics on disease incidence and prevalence, hospital utilization, morbidity and mortality, barriers to accessing care, and behavioral risk factors. Regional statistics were analyzed and compared to state and national statistics to identify where demographic and health disparities exist.

**Data Sources and Methods**

- **Cape Cod Hospital and Falmouth Hospital Utilization Data:** Information including utilization of inpatient, outpatient and emergency services, and patient demographics.

- **Barnstable County Department of Human Services**
  - *Analysis of Substance Abuse on Cape Cod: A Baseline Assessment:* Information includes local epidemiological data and cost analysis of substance use prevention, harms reduction, treatment and recovery activities for Barnstable County.
  - *Barnstable County Behavioral Health Web Portal:* Information about behavioral health including key health topics, current legislation, and an inventory of local organizations that provides assistance to Barnstable County residents.
  - *Barnstable County Public Health and Wellness Web Portal:* Data and information on issues such as disease incidence and prevalence, aging, disability, mental health, substance use, housing, and basic needs in Barnstable County.

- **Cape Cod Foundation Connect Cape Cod:** Web-based central access point for available community resources and inventory of service providers operating in Barnstable County.

- **University of Massachusetts (UMASS) Donahue Institute Long-term Projections for Massachusetts Regional and Municipalities:** Released in March 2015, this report includes population projections through 2035 for all counties in MA.

- **Massachusetts Department of Public Health**
  - *Massachusetts Community Health Information Profile (Mass CHIP):* Database that provides community-level data to assess health needs and health status indicators for counties in MA. Data and statistics were obtained for this assessment from the following sources through MassCHIP:
    - Bureau of Substance Abuse Services
    - Massachusetts Hospital Inpatient Discharges
    - Massachusetts Hospital Emergency Visit Discharges
    - Massachusetts Vital Records Mortality
    - Massachusetts Vital Records Natality and Infant Deaths
- Massachusetts Communicable Disease Epidemiology Program
- Massachusetts Communicable Disease Sexually Transmitted Disease Program
- Massachusetts Communicable Disease HIV/AIDS Program
- Massachusetts Cancer Registry

- **Massachusetts Behavioral Health Risk Factor Surveillance System**: Data on behavioral health risk factors such as healthcare access, immunizations, disability and disease.

- **US Census Bureau**
  - **US Census 2010**: Comprehensive population and demographic data including gender, household characteristics, income, gender, and ethnicity.
  - **American Community Survey**: An online survey that provides annual demographic data for states and counties in the US.

Once collected, statistical data was vetted and augmented with community input. Cape Cod Hospital and Falmouth Hospital selected John Snow, Inc. (JSI) a public health research firm, to conduct primary research including health data research, key informant interviews and facilitation of community and provider forums.

JSI interviewed over 25 regional leaders representing the broad interests of the community and who offer information or expertise relative to the significant health needs of vulnerable populations. They included such entities as municipal public health departments, human service agencies, schools and law enforcement agencies, federally qualified health centers, community organizations serving low-income, vulnerable and medically underserved populations, elected officials, and hospital clinicians and administrators.

Five community input forums were held across Barnstable County. More than 140 individuals and 90 community organizations attended. These forums provided an opportunity to present statistical health findings to participants and identify gaps in services. Additionally, the forums facilitated dialogue on issues not identified and target populations most impacted by health issues.

A post-forum survey was provided to participants to identify and rank health priorities in the region. Feedback and input from the key informant interviews and from attendees of the community and provider forums was used to inform the selection and prioritization of significant health needs.

The following organizations participated in the community input activities throughout the phases of the project:
Public health experts, health care providers and health service organizations:

AIDS Support Group of Cape Cod
Alzheimer’s Family Support Center of Cape Cod
Arbor Counseling Services
Barnstable County Department of Health and Environment
Barnstable County Department of Human Services
Barnstable County Public Nursing Division
CCHC Emergency Services
CCHC Centers for Behavioral Health
Cape & Islands Emergency Medical Services System
Caron Treatment Center
Community Health Center of Cape Cod
Duffy Health Center

Emerald Physicians
Falmouth Human Services
Gosnold on Cape Cod
Harbor Community Health Center-Hyannis
Hope Health
HOPE Dementia & Alzheimer’s Services of Cape Cod
Mashpee Wampanoag Health Service Unit
Outer Cape Health Services
Spaulding Rehabilitation Hospital Cape Cod
Specialty Network for the Uninsured
Town of Brewster Health Department
Town of Falmouth Health Department
Town of Mashpee Human Services
Visiting Nurse Association of Cape Cod

Organizations serving low-income, medically underserved or vulnerable populations:

Barnstable Public School System
Boys & Girls Club of Cape Cod
Cape Cod Center for Women
Cape Cod Child Development
Cape Cod Council of Churches
Cape Cod WIC
Cape Cod Neighborhood Support Coalition
Child and Family Services
Coalition for Children
Community Action Committee of Cape Cod & the Islands
Children’s Cove
Community Development Partnership
Elder Services of Cape Cod & the Islands
Falmouth Public School System
Falmouth Service Center
Falmouth Together We Can
Falmouth Volunteers in Public Schools
The Family Pantry of Cape Cod
Glenna Kohl Fund for Hope
Health Imperatives
Healthy Living Cape Cod

Helping Our Women
Homeless Prevention Council
Housing Assistance Corporation
Independence House
Justice Resource Institute
Lyme Awareness of Cape Cod
Outer Cape Women Infants and Children (WIC)
Mother and Infant Recovery Network
National Alliance on Mental Illness Cape Cod
Samaritans on Cape Cod and the Islands
Sandpiper Nursery School
Sandwich Public School System
SHINE (Serving Health Information Needs of Everyone)
Sight Loss Services
Town of Falmouth Council on Aging
Town of Mashpee Council on Aging
Town of Provincetown Council on Aging
Town of Sandwich Council on Aging
Town of Truro Council on Aging
WE CAN
YMCA of Cape Cod
**County, town, or municipal entities and regional task forces:**

- Cape & Islands United Way
- Cape Cod Community College
- Cape Cod District Attorney’s Office
- Cape Cod Foundation
- Cape & Islands Suicide Prevention Coalition
- Yarmouth Police Department
- MA Department of Mental Health
- MA Department of Public Health
- Mashpee Wampanoag Tribe Health Services
- Community Health Network Area 27
- Behavioral Health Provider Coalition of Cape Cod & the Islands
- Barnstable County Regional Substance Abuse Council
- Barnstable Town Council
- Substance Use in Pregnancy Task Force

Utilizing the information gathered through data analysis and community input, JSI facilitated meetings with hospital leadership to identify and prioritize the most significant health needs and target populations. They also worked with the hospitals to identify feasible health interventions to implement across various settings in partnership with community organizations. Existing resources in the service area were also inventoried, as part of the process to identify gaps in health needs and service delivery.

**Data Limitations and Information Gaps**

It is important to note that assessment activities of this nature nearly always face data limitations with respect to both quantitative and qualitative data collection. The most notable quantitative data limitation is the availability of timely data. In all cases, CCHC strived to maintain the most current data sets. However, certain data are three to five years old. In general however, relative to most states, the Commonwealth does an excellent job of making data available at the state, county, and municipal level.

With respect to qualitative data, information gathered through interviews and community forums provides invaluable insight into major health-related issues, barriers to care, service gaps, and at-risk target populations. However, qualitative data, by its nature and sample size, is not as accurate in forecasting to all populations, particularly seasonal residents, foreign workers or foreign-born citizens in Barnstable County.

While diligent efforts were made to engage local community experts across a broad span of the service area, there is a notable gap in information and representation from the Brazilian and Hispanic communities found in Barnstable County. The CCHC hospitals continue to explore ways to engage these populations, obtain data and further understand their specific health needs.

*Please see Appendix B for additional information related to the activities and timeline of the needs assessment project.*
Demographics of the Service Area

Cape Cod Healthcare is the community safety-net provider of health care services for the year-round residents and millions of annual visitors to Barnstable County, also known as “Cape Cod”. Cape Cod Hospital and Falmouth Hospital, the only two acute-care, non-profit hospitals in the region, together share the 15 towns of Barnstable County as their primary service area. The Upper Cape region includes the Mashpee Wampanoag tribal region.

Cape Cod Hospital, located in Hyannis, MA, is a 259-bed acute-care, non-profit hospital. Falmouth Hospital, located in Falmouth, MA, is a 95-bed acute-care, non-profit hospital.

Barnstable County is a geographically isolated region located on the eastern seaboard of Massachusetts. The narrow peninsula spans over 70 miles in length and hosts a year-round population of 215,449 residents.¹ Barnstable County consists of 15 towns that vary in year-round population size from about 45,000 residents (Barnstable) to slightly more than 1,700 residents (Truro).² In addition to serving year-round residents, the regional community infrastructure, including Cape Cod Hospital and Falmouth Hospital, must meet the demands of a significant influx of seasonal residents and visitors each year.

The Cape Cod Commission produced estimates, using survey data from second homeowners to indicate that the population of summer residents on Cape Cod, when averaged over a full year, is equivalent to an additional 68,856 full-time residents.³ This coupled with day visitors and short-term traveler volume results in an estimated 7 million visitors and residents on Cape Cod in a given summer season. This seasonal population expansion and contraction creates unique challenges for the Cape’s health care system, transportation network, workforce, business community, and housing market.

Population Trends and Age

Demographic analysis reveals two striking trends that will impact Barnstable County in the near future. Current data and future demographic predictions for the region demonstrate that Barnstable County’s overall population is declining and increasing in age. According to the *Long-term Population Projections for Massachusetts Regions and Municipalities*, a publication by the UMASS Donahue Institute, all regions in MA will experience positive population growth from 2010-2035 except for Barnstable County and the islands of Nantucket and Martha’s Vineyard. A projected net loss of 13% of the overall population of Barnstable County is predicted between 2010 and 2035. By 2035, the total year-round population is expected to decrease to approximately 188,000 residents, a population similar to historic 1990 numbers. This decline is attributed to two factors, an outflow of young people from the region, and deaths continuing to outnumber births.
In addition to the declining population, the year-round population of Barnstable County will continue to have a significantly larger proportion of seniors over the age of 65 than the state of Massachusetts (MA) and the United States (U.S.). According to 2009-2013 American Community Survey estimates, nearly 26% of the year-round population of Barnstable County is over the age of 65 compared to 14% in MA and 13% in the U.S.

It is predicted that by the year 2035, nearly 35% of the population of Barnstable County will be over the age of 65.\(^4\) In MA, 58% of the overall population is comprised of residents between the ages of 0–44 years compared to only 42% in Barnstable County. ‘Baby Boomers’, who are currently included in the age bracket of 45 to 64 year-old residents, represent an additional 32% of the Cape’s population. These combined population statistics skew Barnstable County’s median age to over 50 years old, the highest for all counties in Massachusetts. This is more than a decade older than the MA median age of 39 years and the U.S. median age of 37 years.

A common theme discussed in stakeholder interviews and community/provider forums was that persons over the age of 65 and youth (15-24 years old) represented two of the most vulnerable populations in the service area. Youth were identified as a target population due to concerns related to early onset of mental health conditions, substance use and risky health behaviors.

Barnstable County’s gender demographics mirror those of MA; 52% of residents are female and 48% are male. Nearly 12% of Barnstable County residents over the age of 18 are veterans which is higher than the percentage in both MA (7%) and the U.S. (9%). In Barnstable County, 13% of residents report that they are living with a disability compared to 11% in MA. barnstable County must meet the unique health needs of veterans and persons living with disabilities who may be at a greater risk of developing comorbid conditions and often encounter limited access or barriers to care.

Income and Poverty

Although Barnstable County has a lower proportion of low-income residents than does MA (9% vs. 11%), representatives of organizations that serve vulnerable, low-income and medically underserved populations report a growing number of residents who struggle to secure and maintain stable employment. They also rely on public assistance programs to afford health insurance, food and housing.

According to five-year census estimates (2009-2013), the median household income of Barnstable County residents was $60,526 compared to $66,866 for all Massachusetts residents. In 2014, a higher percent of per capita income was derived from transfer payments (social security, disability pensions, housing and food subsidy programs, and unemployment


benefits) in Barnstable County (19%) compared to MA (15%) and the U.S. (17%).
Vulnerable populations are further challenged by employment opportunities on Cape Cod
which decrease during winter months due to characteristics inherent in a seasonal economy
dependent on tourism and other factors. In 2015, the unemployment rate in Barnstable County
ranged from 9% in January to 5% in July compared to a steady annual rate of 6%
unemployment for MA overall.

According to five-year estimates (2009-2013) of the American Community Survey:

- More than 48% of Barnstable County residents who rent and 38% who own a housing
  unit are cost-burdened, spending 35% or more of their total income on housing.
  According to the U.S. Department of Housing and Urban Development, families who pay
  more than 30% of their income for housing are considered cost-burdened and may have
difficulty affording necessities such as food, clothing, transportation and medical care.

- 42% of Barnstable County residents receive publicly-funded health insurance coverage
  compared to 32% of residents in MA overall, and

- 42% of residents receive social security payments compared to 28% in MA overall.

Combined together, these indicators paint a picture of many residents in need. The community
input collection phase of the project identified numerous target populations in need of health
interventions. These included financially disadvantaged populations, including individuals with
transitional employment, children under the age of 18, individuals/families with housing
insecurities, and those living on fixed incomes.

**Race, Ethnicity and Language**

In addition to age and income, race, ethnicity, and language play a role in determining health
outcomes for residents. Compared to MA, Barnstable County has a relatively homogeneous
population with 92% identifying as Caucasian in 2009-2013 census estimates. Massachusetts is
more racially diverse with only 76% of residents identifying as Caucasian.

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According to five-year estimates of the American Community Survey (2009-2013) the largest racial/ethnic minority groups on Cape Cod are Hispanics/Latinos and African-American residents with each group representing about 2% of the population.

In that same time period, 7% of the population living in Barnstable County was foreign-born, compared to 15% for the Commonwealth of Massachusetts. Slightly more than 8% of the population five years or older in Barnstable County speaks a language other than English at home compared to 22% in the Commonwealth.

While diversity may be low comparatively, public health experts and individuals representing low-income, vulnerable, and medically underserved populations on Cape Cod cite that foreign-born residents and racial/ethnic minorities on Cape Cod (e.g., Hispanics, African Americans, and Portuguese-speaking Brazilians) were most likely to experience barriers to accessing care and are disproportionately identified within high needs populations as compared to others.

Insurance Status

Massachusetts leads the nation as the state with the lowest rate of uninsured residents. In 2014, only 4% of residents in the Commonwealth lacked medical health insurance, compared to 10% nationally, due to the State’s early health reform efforts which began in 2006. However, there is variation in insured populations across the state of MA according to The Geography of Uninsurance in Massachusetts 2009-2013, a publication by the Blue Cross Blue Shield of Massachusetts Foundation and the Urban Institute. According to the study, Barnstable County, at 3.4%, has the highest percentage of uninsured children (0-17 years) in the state compared to all other counties. Barnstable County, with an overall 5% uninsured rate (adults and children), is also the 4th highest ranking county in MA for the number of uninsured persons of all ages.

Input from public health experts and individuals representing low-income, vulnerable, and medically-underserved populations on Cape Cod note that beyond individuals and children who are uninsured, there are many residents who are ‘under-insured’. This population struggles with the cost of publicly available health plans, coverage of deductibles and prescriptions, and with maintaining insurance coverage under continuous enrollment changes.


Cape Cod Hospital and Falmouth Hospital derive approximately 67% of patient service revenues from public payers. From FY2013 to FY2015 the hospitals’ percentage of Medicaid and Medicare steadily increased while the percentage from non-government sources steadily decreased. As both state and federal payers face budgeting concerns, public payer reimbursement is forecasted to remain flat or decline. Many of the key services used by vulnerable populations such as behavioral health are poorly reimbursed. These trends demonstrate continued reliance on sources of public health coverage as the area demographics become more challenging.

**Conclusion**

Understanding the community need and health status of Barnstable County residents begins with identifying the demographic profile and underlying socio-economic drivers that impact health and health equity. Assessing social determinants of health such as age, income, race/ethnicity, language, income, poverty, unemployment, insurance coverage, and housing status provides critical information for identifying target populations and community settings for health improvement interventions and activities.

*Please refer to Appendix C for the demographic data for Barnstable County.*
IDENTIFICATION AND PRIORITIZATION OF SIGNIFICANT HEALTH NEEDS

The needs assessment approach and process provided ample opportunity to collect and analyze the quantitative and qualitative demographic and health indicator data. Ultimately, four major health findings for Barnstable County emerged:

1. The regional health care system must respond to the growing needs of an aging population,

2. Chronic diseases remain the leading causes of death, and surveillance of infectious diseases signals the need for continued disease management and response,

3. Mental health and substance use disorders have a profound impact on individuals, families and the entire community, and

4. Health risk factors and behavioral trends require increased prevention and health education for residents of all ages.

These major findings which were supported by health indicator data and community input, led to the identification of these significant health priorities facing Barnstable County residents:
Cape Cod Hospital’s and Falmouth Hospital’s implementation strategies for FY2017-FY2019 will focus on the priorities and target populations identified in the research. While these health needs are prioritized, the hospitals recognize their inherent interconnectedness. Improvements and gains in one priority area will also impact other priority areas.

These priorities remain generally consistent with the health priorities identified in the prior Community Health Needs Assessment FY2014-FY2016. The assessment identified chronic and infectious disease, access to care, mental health, and substance abuse as key priorities. While some gains have been made, these issues are long-standing and complex. They will require continued and committed attention.

The combination of the mental health and substance abuse priority into one overarching priority of Behavioral Health recognizes the co-occurrence and comorbidities that exist for many individuals with substance use and mental health disorders. The priority area of Disease Prevention and Wellness in this CHNA represents a shift towards prevention of diseases through education and improving behavioral health risks. Finally, the specific populations, including seniors and young people that were identified as priority areas in the FY2014-FY2016 report are embedded in the current implementation plan.

**Overview of FY2017-FY2019 Health Priorities and Sub-Priorities**

**Priority Area #1: Chronic and Infectious Diseases**

Prioritizing chronic and infectious disease prevention, screening, detection, and management is a primary goal of healthcare providers locally, regionally and nationally. Based on disease mortality, incidence and prevalence in Barnstable County, the five sub-priorities that will be the focus of implementation strategies for this priority are:

1) Cancer,
2) Heart disease,
3) Alzheimer’s disease and Dementia,
4) Hepatitis C and HIV/AIDS, and
5) Tick-borne diseases.
Cancer

Cancer is the second leading cause of death in the U.S. and the leading cause of death in MA and Barnstable County. In 2015, mortality rates in the U.S. (160) due to all cancers were similar to rates in MA (163). In 2011, according to the most recent data available from the Massachusetts Department of Public Health, Barnstable County mortality rates of 166 per 100,000 persons were slightly higher than the U.S. and MA. Breast cancer in women, prostate cancer in men, and lung cancer accounted for the most deaths.

With respect to incidence, Barnstable County (547) had a statistically higher incidence rate for all types of cancer in 2011 than MA (502). The cities/towns with the highest incidence rates for cancer (all-types) were Barnstable, Bourne, Dennis, Mashpee, Provincetown, and Yarmouth. Again, invasive breast cancer in women and prostate cancer in men were the primary drivers of this overall cancer incidence rate.

According to the 2007-2011 Massachusetts Cancer Registry, the incidence of invasive breast cancer in women is higher in Barnstable County (164) compared to MA (136). In addition to higher incidence rates, Barnstable County has higher rates of deaths, hospitalizations, and emergency department visits attributable to breast cancer than the rates of MA overall.


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12 Cancer mortality rates are age-adjusted rates per 100,000 persons.

13 Cancer incidence rates are age-adjusted rates per 100,000 persons.
Similarly, prostate cancer in men has a higher incidence rate in Barnstable County (190) than MA (151). Rates of death and hospitalizations attributed to prostate cancer are also higher than overall rates in MA. Public health experts and participants in community input sessions identified the need to focus broadly on cancer prevention, education, screening, and detection efforts. These efforts will be directed primarily towards breast cancer, prostate cancer, melanoma, lung cancer, and colorectal cancers.

Heart Disease

According to the 2013-2014 Massachusetts Behavioral Risk Factor Surveillance System (MA BRFSS), 37% of Barnstable County respondents report having been told they have high blood pressure compared to a MA overall response rate of 29%. Additionally, Barnstable County had slightly higher rates of residents reporting that they were currently taking blood pressure medication, or had been told they had a coronary heart disease or myocardial infarction. From 2008-2012, Barnstable County hospitalizations and mortality rates attributed to hypertension, major cardiovascular disease, heart failure and cerebrovascular disease were consistent with or slightly below overall rates for MA.

However, according to 2008-2012 Massachusetts Hospital Emergency Visit Discharge data, discharges attributed to cardiovascular diseases were higher in Barnstable County (531) than MA (402), as were discharges for heart disease for Barnstable County (297) compared to MA (215).

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14Cancer incidence rates are age-adjusted rates per 100,000 persons.

15Cardiovascular disease and heart disease emergency discharge rates are age-adjusted per 100,000 persons.
Public health experts and participants in community input sessions identified a need to assist residents with heart disease and related conditions to improve disease self-management at home through community education and monitoring.

**Alzheimer’s Disease and Dementia**

Alzheimer’s disease is officially listed as the sixth-leading cause of death in the United States. It is the fifth-leading cause of death for people age 65 and older.\(^\text{16}\) According to the Alzheimer’s Association, one in nine people over the age of 65 have Alzheimer’s disease and one in three seniors dies with Alzheimer’s disease or other dementia.\(^\text{17}\)

It is estimated that in MA the number of people aged 65 and older with Alzheimer’s disease will increase by 25% between 2016 and 2025.\(^\text{18}\) With Barnstable County’s aging population trends, Alzheimer’s disease and dementia will place a significant demand on our health system and community to address these diseases and the complexities of how they impact the lives of individuals and families.

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In 2012, approximately 9% (5,000 individuals) of Barnstable County Medicare beneficiaries had been diagnosed with Alzheimer's disease, related disorders, or Senile Dementia. Mortality attributed to Alzheimer’s disease is higher in Barnstable County (26) than MA (20) overall. For Parkinson’s disease, the mortality rates are slightly higher in Barnstable County (7) than MA (6) overall. The individual towns that exhibited the highest rates for Parkinson’s and Alzheimer’s disease were Barnstable, Bourne, Dennis, Provincetown, Sandwich, and Yarmouth.

Public health experts and participants in community input sessions expressed significant interest and concern in the topic of age-related dementias. They voiced the need to expand the community health infrastructure to meet the growing needs of residents with these diseases. Feedback focused on training frontline responders and caregivers in dementia-specific issues, expanding dementia-specific adult day programs, providing education and support for caregivers of those with dementia, and improving care transitions for this population.

**Hepatitis C**

Barnstable County experienced a significant rise in the incidence rate per 100,000 persons of Hepatitis C virus from 2009 (63) to 2013 (144). This appears to be an all-time high for Barnstable County and is significantly higher than the rate in MA (119) overall.

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20Alzheimer’s disease and Parkinson’s disease mortality rates are age-adjusted rates per 100,000 persons.

21Hepatitis C virus incidence rate is the crude rate per 100,000 persons.
According to the 2014 preventable disease report publication *Common Health for the Commonwealth* by the Massachusetts Health Council, Hepatitis C is nearly ten times more transmittable than HIV. The virus spreads quickly among individuals using intravenous drugs, those sharing needles, and individuals engaged in unsafe sexual practices. The cities/towns of Barnstable, Falmouth, and Provincetown all have rates of Hepatitis C virus that are statistically higher than the rates of MA overall.

Public health experts and participants in community input sessions suggested that a public health campaign about Hepatitis C and its forms of transmission is needed to inform residents. In addition, specific health interventions such as aggressive disease surveillance efforts and mobile testing activities for high-risk and hard to reach populations including those who may be homeless, living in shelters or incarcerated were identified.

**HIV/AIDS**

Since 2000, the incidence of HIV/AIDS in MA has decreased and the survival rates have increased due to great strides in disease management. In Barnstable County, HIV/AIDS incidence, hospitalization and death rates are all now lower than the overall rates for the Commonwealth. The one outlier is the HIV-related hospitalization rate for residents of Provincetown (233), which was significantly and statistically higher than the Commonwealth (43).22

Despite improved incidence and prevalence rates for HIV/AIDS overall, disease surveillance efforts, identification of new vulnerable populations and education must be maintained. In MA, African-American and Hispanic/Latino populations are diagnosed with HIV infection at levels ten and seven times that of the white (non-Hispanic) population, respectively.23 In *Health and Risk Behaviors of Massachusetts Youth*, a 2013 publication by the MA Department of Elementary and Secondary Education, survey results demonstrate a decline in protective sexual behaviors of youth between 2005 and 2013 with students reporting less school-based education about HIV/AIDS and a decrease in discussions with parents about prevention of HIV/AIDS and sexually transmitted diseases.24

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22HIV-related hospitalization rates are age-adjusted rates per 100,000 persons.


Public health experts and participants in community input sessions suggested continuing broad community education related to HIV/AIDS prevention across all sectors of the community. Youth between the ages of 15-24 years and individuals at risk through intravenous drug use or sexual transmission of the disease were identified as specific populations for whom to target education and prevention activities.

**Tick-borne Diseases**

In 2014, about 96% of reported Lyme disease cases in the U.S. were clustered in 14 Northeast and Midwest states including Massachusetts. Barnstable County has been identified as a ‘hot spot’ for Lyme disease with cases increasing over time and at a consistently higher rate than MA overall. In 2013, the annual rate of Lyme disease in Barnstable County (86) was higher than MA overall rates (62) and had increased since 2009 (82). In addition to Lyme disease, Barnstable County disease surveillance efforts have noted the emergence or increase of other tick-borne diseases including Babesiosis, Anaplasmosis, Borrelia Miyamotoi and the Powassan virus.

Public health experts and participants in community input sessions identified the need for continued prevention, education and surveillance of tick-borne diseases, earlier detection points, and updated education for patients and health professionals on treatment protocols.

**Priority Area #2: Behavioral Health: Mental Health and Substance Use Disorders**

Mental illness and substance use disorders have a profound impact on the health of people living throughout the United States. According to the Substance Abuse and Mental Health Service Administration’s *2014 National Survey on Drug Use and Health* an estimated 18% of Americans ages 18 and over experienced some form of mental illness. The report also estimates that in 2014, 8% of Americans ages 12 and older had a substance use disorder within the prior year.

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26Lyme disease incidence rates are crude rates per 100,000 persons.

Depression, anxiety, and alcohol abuse are directly associated with chronic disease, and a high proportion of those living with these disorders also have a chronic medical condition. The impact of mental health and substance abuse on the residents of Barnstable County was particularly profound as evidenced in both the quantitative and qualitative data. Three sub-priorities will be the focus of implementation strategies for this priority:

1) Mental health,
2) Substance use disorders, and
3) Co-occurring disorders and comorbidities.

Mental Health

According to 2008-2012 data from the MA Department of Public Health (MA DPH), Barnstable County (2,751) had a statistically higher rate of hospital emergency department discharges per 100,000 persons when a mental health condition was the primary reason for the visit than MA (2,092) overall. The individual towns that exhibited the highest rates were Barnstable, Brewster, Dennis, Falmouth, Harwich, and Yarmouth. Barnstable County residents (5,887) also had a higher rate of mental health related discharges from the emergency departments than MA residents overall (4,990).28
In 2012, Barnstable County’s (15) rate of suicides per 100,000 persons was significantly higher than MA (9) overall. Barnstable County’s annual suicide death count increased from 2009-2012 from 26 to 32 per year.\textsuperscript{29} Suicide data from 2005-2011 for Barnstable County identifies youth ages 15 to 24 and males ages 35 to 64 as specific high-risk populations. The individual towns that exhibited the highest rates of suicide were Barnstable, Yarmouth, Falmouth, Sandwich, and Bourne.

Cape Cod Hospital and Falmouth Hospital utilization data also demonstrated increases in diagnosis of anxiety disorders and demand for inpatient and outpatient psychopharmacological and therapeutic services.

Quantitative data specifically related to mental health morbidity or mortality is limited but overwhelming consensus was shared across all phases of community input that behavioral health is one of the most pressing health issues facing Barnstable County. Public health experts and participants in community input sessions cited challenges that include geographic gaps in behavioral health services, insurance barriers for low-income families and adults, and access to inpatient services for adolescents and geriatric patients.

Community stakeholders advocated strongly for expansion of mental health services, more accessible resources for families and caregivers of people with mental health disorders, and mental health education and training for law enforcement and emergency first responders.

**Substance Use Disorders**

In March of 2015 the Barnstable County Department of Human Services published a report, *Analysis of Substance Abuse on Cape Cod: A Baseline Assessment*, to estimate the epidemiological scope and direct costs of substance use in Barnstable County. The report estimates that in Barnstable County nearly $110 million of annual direct cost is attributed to substance use treatment, rehabilitation, arrests, incarceration, and prevention/harm reduction. The analysis further asserts that alcohol addiction is endemic and impacts 8% of the population, while 3% of the population is addicted to heroin or opioids and an additional 3% are addicted to “other drugs” (not including marijuana). The report maintains that this is very likely a low estimate and that the impact of substance use on Cape Cod, like many other regions in the Northeast U.S., has reached ‘epidemic’ status.

Recent MA DPH data indicates a 450% increase in the annual rate of unintentional opioid overdose deaths from 2000 to 2015 in Barnstable County. A total of 406 deaths occurred between 2000 and 2015, with the significant increase from 2012 to 2015 contributing to 40% of total deaths since 2000. Annual rates continue to increase with Barnstable County experiencing 53 deaths in 2014 and 66 in 2015, significantly more than the 12 confirmed opioid overdose deaths in 2000.\(^{30}\)

Data from MA DPH on admissions to state-funded substance abuse programs were also telling. In 2013, MA Bureau of Substance Abuse Services data revealed that Barnstable County (2,214) had a higher rate per 100,000 persons of admissions to MA DPH-funded substance abuse treatment programs than MA (1,591) overall. Treatment admission rates for heroin nearly doubled from 2010 (430) to 2013 (820), specifically amongst residents ages 15-24 years old.

![Admissions to MA DPH Funded Substance Use Treatment Programs](image)

Source: MDPH, MA Bureau of Substance Abuse Services, 2013. Admission rates are per 100,000 persons.

Although overall treatment admissions for alcohol have trended downward since 2007, treatment admissions for alcohol as the primary substance were still 14% higher in Barnstable County (46%) than MA (32%) in 2013. Every town on Cape Cod, except for Truro, had statistically higher admission rates due to alcohol than MA, ranging from the highest rate in Provincetown (1,768) to the lowest rate in Sandwich (793).\(^{31}\)

\(^{30}\)Massachusetts Department of Public Health (August 2016). *The Number of Unintentional Opioid-Related Overdose Deaths by County, MA Residents: 2000-2015*

\(^{31}\)Substance abuse treatment admissions rates are per 100,000 persons.
From 2008-2012, Barnstable County (1,062) also had a statistically higher rate of alcohol/substance abuse-related hospital emergency department discharges than MA (859).\(^{32}\) Cape Cod Hospital and Falmouth Hospital have responded to the complex social and medical needs of infants born with prenatal exposure to substances. In FY2015, approximately 5% of the combined total births at both hospitals experienced prenatal substance exposure and 3% of the combined total births were subsequently diagnosed with Neonatal Abstinence Syndrome, a condition in which infants withdraw from substances within hours or days to weeks after birth, depending on the type and frequency of prenatal substance exposure.

The need for expanded prevention education for youth, improved screening in primary care environments and expansion of Medication Assisted Treatment programs and inpatient treatment options were some of the community and health needs identified by public health experts and participants in community input sessions. In addition, expanded education regarding the comorbidities of substance use and infectious and chronic diseases, education for prescribers and pharmacists, and the expansion of recovery support systems for individuals with substance use disorders and their families were identified as areas of needed focus.

**Co-occurring Disorders and Comorbidities**

The coexistence of a mental health disorder and a substance use disorder is referred to as a co-occurring disorder. In *Behavioral Health Trends in the United States*, a publication released by the Substance Abuse and Mental Health Service Administration, it is estimated that in 2014 approximately 8 million adults in the U.S. over the age of 18 had a co-occurring disorder. This estimate represents approximately 3.3% of the overall adult population.\(^{33}\) For Barnstable County, this means more than 5,900 residents may be suffering from co-occurring disorders which are often difficult to diagnose due to the complexity of symptoms and severity of each disorder.

Strong correlations also exist between mental health disorders such as depression and anxiety and chronic illnesses such as diabetes, heart disease, cancer, and Alzheimer’s disease. Active use of substances raises the risk of developing a chronic illness and increases the severity of the illness once it emerges. Kidney and liver diseases, blood-borne illnesses, sexually transmitted diseases, respiratory, neurological, and heart disease can be impacted by substance use disorders.

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\(^{32}\)Massachusetts Department of Public Health. (2013) MassCHIP: 2008-2012 Massachusetts Hospital Emergency Department Discharges. Substance abuse emergency discharge rates are age-adjusted rates per 100,000 persons.

\(^{33}\)Substance Abuse and Mental Health Service Administration. (2015). *Behavioral Health in the United States: Results from the 2014 National Survey on Drug Use and Health.*
A recent study released by the Center for Health Information and Analysis, a department of the Commonwealth of Massachusetts, found that approximately 40% of hospitalized patients in MA acute-care hospitals had at least one comorbid behavioral health condition. Of this cohort, 25% had a mental health disorder, 6% had a substance use disorder and 9% had co-occurring mental health and substance use disorders. Hospital readmission rates were significantly higher for patients with behavioral health comorbidities. The hospital readmission rates were even further impacted if the patient was between the ages of 18 and 44 years old or insured by Medicaid.34

Cape Cod Hospital and Falmouth Hospital patient and utilization data support these findings and demonstrate that patients with a behavioral health diagnosis typically have a longer average length of stay than patients without a behavioral health diagnosis.

Public health experts and participants in community input sessions identified the need to educate health professionals in co-occurring disorders and comorbid behavioral health conditions, develop integrated treatment programs, expand screenings for chronic disease to substance dependent populations, and provide education specifically related to co-occurring disorders to the public.

Please refer to Appendix D for Barnstable County disease and health indicator data.

Priority Area #3: Access to Care

Barnstable County has a strong and robust healthcare system anchored by the hospitals and hospital outpatient clinics, a network of federally qualified health centers, and a broad continuum of community-based health and human service agencies. However, barriers to care exist in the community especially for low-income, vulnerable, and medically underserved populations in Barnstable County.

There are four sub-priorities that will be the focus of implementation strategies for this priority:

1) Provider access,
2) Insurance coverage,
3) Financial barriers, and
4) Language and health literacy.

Provider Access

Public health experts and community members raised concerns regarding access to care. These included a shortage of primary care providers accepting new patients and long wait times for some specialty care appointments. Additionally, the concentration of providers in certain towns can pose a challenge given the relative lack of public transportation in the region.
In 2012, Barnstable County had a rate of 97 primary care providers per 100,000 persons compared to 137 per 100,000 persons in MA overall.\textsuperscript{35} Despite this shortage of providers 2013-2014 MA BRFSS data showed that 92% of Barnstable County residents reported having a personal provider of health care services compared to 88% statewide, and that 82% of residents reported having had a routine checkup with their doctor within the past year compared to 78% in MA overall.

Public health experts and participants in community input sessions identified that needs exist beyond primary care and specifically for medically specialized care such as dermatology, neurology, psychiatry and dental care. Cape Cod Healthcare, the parent organization of Cape Cod Hospital and Falmouth Hospital, continues to focus on physician recruitment and collaboration with local federally qualified health centers to promote greater access.

\textbf{Insurance Coverage}

Barnstable County has a statistically higher rate of all residents and children ages 0-17 that are uninsured compared to MA overall rates. Public health experts and participants in community input sessions identified self-employed individuals and residents that may be employed in part-time or seasonal positions as target populations who are impacted by barriers to obtain and maintain health insurance. Nearly 8% of Barnstable County residents who are employed have no health insurance compared to 5% in MA overall. In addition, 13% of workers have public health insurance compared to 11% in MA overall.\textsuperscript{36}

Undocumented immigrants and seasonal visa workers were also identified as particularly vulnerable populations that face significant challenges to accessing care. Significant changes to Medicaid and Medicare, including new administrative burdens in the enrollment and re-enrollment process, were noted as challenges faced by individuals with low health literacy, low-income populations and seniors over the age of 65. New health care costs also posed challenges for residents who may not be able to afford deductibles or prescriptions due to living on a fixed income or for those who lack stable employment. Specific populations identified for targeted outreach, education and assistance for enrollment and re-enrollment services include self-employed workers, low-income individuals, families with children under the age of 18, immigrants, and seniors over the age of 65.


Financial Barriers

Financial barriers were identified as another barrier to accessing care for residents. In 2014, according to the MA BRFSS, an estimated 6% of Barnstable County residents reported not being able to see a provider due to cost in the past year compared to 9% for the Commonwealth.

Public health experts and participants in community input sessions identified the unintended impact of new health insurance plans with high deductibles as a likely cause of individuals forgoing preventive services such as screenings or medication due to out-of-pocket costs. In addition, it was cited that individuals and families struggle to afford oral health and behavioral health services due to a lack of adequate coverage of these services by state health plans, forcing consumers to either go without needed services or pay out-of-pocket expenses. These factors limit access and often result in inappropriate use of the hospital emergency department services.

Language and Health Literacy

Cape Cod Hospital and Falmouth Hospital provide annual funding to the Community-Based Interpreter Service (CBIS) program which provides free medical interpretation in Cape-based physicians’ offices. CBIS program data from 2013-2015 demonstrates that 82% of all interpreter requests were for Portuguese translation and 18% of requests were for Spanish translation. Demand for interpreter services for these two languages has remained consistent over several years.

Similarly, Cape Cod and Falmouth Hospital patients who speak a primary language other than English overwhelmingly report Portuguese or Spanish as their primary language. However from FY2013 to FY2015 there were slight increases in patients who report speaking Haitian Creole, Russian, Vietnamese, or Urdu as a primary language.

In a broader context, barriers related to health literacy likely present challenges to a larger group of residents across all racial, ethnic and income categories. The Patient Protection and Affordable Care Act of 2010 defines health literacy as the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions. Health literacy represents a set of skills that allows an individual to interpret medical documents and instructions, use numerical information to self-manage disease and medications, as well as to effectively communicate with health care providers.

Low or limited health literacy is a significant problem in the United States with approximately 35% of the population demonstrating basic or below basic health literacy skills. Rates of limited health literacy tend to be higher in the elderly, minorities, individuals with limited education, individuals with language barriers, and people living in poverty. National studies identify a correlation between low health literacy and poor health outcomes including high hospitalization rates and specific disease rates.\(^{38}\)

Public health experts and participants in community input sessions identified the need to continue to provide community-based interpreter services in different health care settings across the region and to better assess rates of health literacy for residents.

**Priority Area #4: Disease Prevention and Wellness**

Primary prevention activities can impact general wellness, as well as specific diseases, across Barnstable County. There are four sub-priorities that will be the focus of implementation strategies for this priority:

1) Health screenings,

2) Physical activity and nutrition,

3) Elder health and wellness, and

4) Caregiver support.

**Health Screenings**

Chronic diseases, specifically cancer and heart disease, remain the leading causes of death in Barnstable County. Screenings for acute and chronic diseases offer health professionals and patients an opportunity for early detection, intervention and disease management.

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While Barnstable County residents report higher rates of cholesterol screenings, HIV/AIDS testing, and vaccination for shingles than those rates of MA overall, the MA BRFSS identified several important screenings and vaccinations that fall short of comparative statewide rates:

- 70% of women 40 years or older in Barnstable County reported having a mammogram in the past 2 years compared to 85% in MA;
- 71% of women 18 and older in Barnstable County reported having a cervical cancer test (PapTest) in the past 3 years compared to 78% in MA;
- 65% of adults over the age of 65 in Barnstable County reported ever having a pneumonia vaccination compared to 70% in MA, and
- only 65% of Barnstable County adults over the 18 years reported receiving a flu shot.

Public health experts and participants in community input sessions identified target populations to whom additional screenings should be focused. These included residents who are uninsured, under-insured, lack a primary care provider, or those who experience language barriers.

**Physical Activity and Nutrition**

In 2013-2014, according to data from the MA BRFSS, 61% of Barnstable County adults report being obese or overweight compared to the Commonwealth rate of 58%.

According to results from Body Mass Index (BMI) screenings in MA School Districts for school year 2013-2014, more than half of Cape Cod school districts had higher percentages of overweight or obese students in grades 1, 4, 7, and 10 than the overall percentage for MA (31%). In addition, the report found a correlation between lower median income of a town and a higher percentage of overweight or obese students.\(^{39}\)

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The MA BRFSS data also show that only one in five adults in Barnstable County consumed the recommended five servings of fruits and vegetables per day. This was comparable to MA reported rates overall. According to the U.S. Department of Agriculture, nearly 9% of Barnstable County low-income residents live more than one mile from a supermarket or large grocery store. This indicator is directly associated with access to fresh food; and this finding is comparable to rural regions in MA such as Berkshire County.

Public health experts and participants in community input sessions identified access to fresh food, poor nutrition and poor exercise habits as concerns for the general wellness of the community. Meal delivery programs for seniors and free summer lunch programs for youth were highlighted as examples of programs that are working well. However, residents and providers alike noted that access to programs that promote physical fitness or nutritional education are limited. More emphasis on physical activity and nutrition is needed across the community and all age cohorts.

**Elder Health and Wellness**

Maintaining the health and wellness of elders is of particular interest in our region with more than 40% of households having one or more residents over the age of 65 compared to 26% of households in MA overall.\(^{40}\) Fourteen of 15 towns in Barnstable County have higher proportions of residents above the age of 65 than the state of MA.

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In 2014, 4% of county residents were above 85 years old, compared to 2% in MA. As a cohort, older adults are much more likely to have a chronic illness, multiple chronic illnesses and disabilities than adults in the population overall.

![Percentage of Population Over Age 65 by Town](image)

14 of the 15 towns in Barnstable County have a higher percentage of their population over the age of 65 when compared to MA (14%).


Public health experts and participants in community input sessions identified the challenge of managing a greater number of residents who are ‘aging in place’. The growing rates of age-related dementias and risk of injury due to falls were identified as significant health concerns for our region. Residents of Barnstable County are more likely to be discharged from the hospital because of injury due to a fall, compared to residents of MA overall. From 2008-2012, the hospital emergency department discharge rate for falls of 3,449 per 100,000 persons in Barnstable County was significantly higher compared to MA discharge rate for falls of 2,763 per 100,000 persons.41

Public health experts and community forum participants cited additional concerns regarding sight loss, hoarding, depression, anxiety, social isolation, alcoholism, and substance use by seniors. Target populations identified include frail elders over the age of 85 years old, geographically isolated seniors, and individuals who may be socially isolated due to spousal loss or a lack of local family support.

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41Emergency department discharge rates for falls are age-adjusted rates per 100,000 persons.
Caregiver Support

*Caregiving in the U.S. 2015*, a research report by AARP, estimates the prevalence of caregiving for an adult at 17% of the overall population. Projecting this to Barnstable County estimates that more than 36,000 residents are likely fulfilling the role of caregiver to another adult. The study also states that 85% of caregivers provide care for a relative, with nearly half caring for a parent or parent-in-law. One in ten caregivers provides care for a spouse. The average caregiver is female and 49 years old. However, one in seven caregivers is 75 or older. Caregivers report deterioration of their own physical health, emotional stress and financial strain as the most challenging aspects of their role as caregivers.

Public health experts and participants in community input sessions echoed the importance of supporting caregivers through respite care, support groups, and social and self-care activities. Target populations identified include adult children caring for aging parents, older adults caring for a spouse, and older adults caring for grandchildren due to parental custody issues.

*Please refer to Appendix E for Barnstable County behavioral risk factor data.*

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SUMMARY OF PRIORITIES AND TARGET POPULATIONS

The four significant health priorities identified in the CHNA impact Barnstable County residents across all demographic and geographic boundaries. Addressing chronic and infectious diseases leverages the core competencies of the hospitals and health care system to reduce preventable causes of mortality. Growing needs and demands for behavioral health services and treatment challenges national, regional and local systems of care to respond and requires communities to address the need for prevention, intervention and recovery services. Despite high rates of insured residents in Barnstable County, barriers to accessing care still exist and impact low-income and ethnically diverse populations. Disease prevention and wellness initiatives aim to improve and sustain good health.

Cape Cod Hospital and Falmouth Hospital will focus implementation strategies on these priorities over the next three years (FY2017-FY2019). Initiatives will align with priorities and will address target populations identified through data collection and input by public health experts and individuals representing vulnerable, low-income and medically underserved populations.

FY2017–FY2019 Goals:

1) Improve chronic and infectious disease prevention and management to meet the growing needs of an aging and at-risk population.

2) Strengthen regional health services and community resources for individuals with mental health conditions, substance use, co-occurring disorders, and comorbidities.

3) Reduce barriers to care and strengthen the regional health safety net for vulnerable populations.

4) Improve the health and disease prevention of all residents of Barnstable County and sustain the wellness of seniors and caregivers.

Target Populations

- All residents and age cohorts for disease prevention and health screening initiatives
- Residents managing chronic diseases or those at-risk of developing chronic diseases
- Uninsured and under-insured residents
- Residents facing barriers to care due to language, cost or age
- Individuals and families navigating health care and community support services for mental health and substance use disorders
- Residents over the age of 65, especially those 85 years and older, at an elevated risk for isolation and injury
- Caregivers of adults with chronic disease and disabilities
- Youth and young adults, ages 15-24
NEEDS NOT ADDRESSED

Cape Cod Hospital and Falmouth Hospital are working to address the health priorities determined by the CHNA through community benefits activities and hospital implementation strategies. Three specific issues identified through the assessment fall outside of the core competencies of the hospitals and will not be included in the CCH and FH implementation strategies. They are transportation, housing and homelessness, and employment. These issues are long-standing regional challenges and were identified in the previous CHNA as issues outside the scope of significant health needs that the hospitals can reasonably address. Residents impacted by these issues will be served by the hospitals since it is their mission to serve all without regard to sex, race, creed, residence, national origin, sexual orientation, or ability to pay.

Cape Cod Hospital and Falmouth Hospital recognize that regional entities with the core competencies, knowledge, staff and funding sources exist to specifically address the issues of transportation, housing and homelessness, and employment. The hospitals will collaborate on activities that are led by the appropriate agencies and in a manner that will best address social determinants of health. Outlined below are organizations identified in the community that are working to address these important issues.

Transportation: While transportation was identified as a barrier to obtaining health care services, solving systemic transportation issues requires the skills of organizations such as the Cape Cod Regional Transit Authority (CCRTA) and the Cape Cod Commission who are leading regional efforts to improve transportation in our region. Cape Cod Healthcare has expanded access to care in 88 locations across Cape Cod in an effort to address transportation challenges of residents.

Housing and Homelessness: Community input also identified the challenge of housing affordability and homelessness as barriers to accessing healthcare services. Organizations such as Housing Assistance Corporation, Duffy Health Center, Lower Cape Outreach Council, Barnstable County Regional Network to End Homelessness, Homeless Not Hopeless, CHAMP Homes, and regional/town housing authorities lead efforts to help eliminate housing barriers in the service area. Cape Cod Hospital and Falmouth Hospital serve homeless individuals/families in need of acute, primary, specialty, and behavioral health services.

Employment Status: Experiencing seasonal or chronic unemployment was identified as a barrier to obtaining healthcare. The skills needed to solve systemic employment issues are better aligned with organizations such as Career Opportunities and Job Training and Employment Corporation. Cape Cod Healthcare, Cape Cod Hospital and Falmouth Hospital have longstanding and effective workforce development partnerships across the community to encourage training and education in the allied health fields.
EXISTING HEALTHCARE FACILITIES AND RESOURCES WITHIN THE COMMUNITY

The needs assessment process included the development of an inventory of available health and human service organizations, facilities and programs available to address the identified health priorities.

The community health infrastructure of Barnstable County is anchored by Cape Cod Hospital, Falmouth Hospital and hospital outpatient clinics, as well as a network of federally qualified health centers, community-based health and human service organizations, and a growing set of health services through the Mashpee Wampanoag Tribe that work collaboratively in the service area.

**Cape Cod Healthcare:** Cape Cod Hospital and Falmouth Hospital provide acute inpatient, outpatient, surgical, and diagnostic care to residents of Barnstable County and visitors.

Key service lines include Behavioral Health, Cardiovascular, Infectious Disease, Imaging, Women’s and Children’s Health, Neurosciences and Pain Management, Oncology, Orthopedics and Rehabilitation, General Surgery, and Wound Care.

Cape Cod Healthcare, Cape Cod Hospital and Falmouth Hospital offer ambulatory services at satellites located throughout the service area. Outpatient health centers provide primary care, specialty care, urgent care, wound care, laboratory services, pharmacy, behavioral health, imaging, and rehabilitation services across Cape Cod.

In addition to the two hospitals, the Cape Cod Healthcare system includes other affiliates such as the Visiting Nurse Association of Cape Cod, CCHC Laboratory Services, JML Care Center, Heritage at Falmouth, CCHC Centers for Behavioral Health, Emerald Physicians, and the Medical Affiliates of Cape Cod.

The Visiting Nurse Association of Cape Cod (VNA Cape Cod) provides home care, hospice care, and palliative care to residents of Barnstable County. Other VNA Cape Cod services include public health and municipal health programs, adult day programs, and home health visits to ensure smooth transitions from hospitals or skilled nursing facilities to home.

Cape Cod Healthcare Laboratory Services is the largest clinical lab in the service area with 14 outreach locations across Barnstable County. Each location is a patient service site dedicated to phlebotomy and specimen collection. CCHC Laboratory Services also provides routine home-based phlebotomy services.

JML Care Center is a skilled nursing facility in Falmouth that specializes in orthopedics, cardiology, pulmonary, neurology/stroke, and complex medical rehabilitation and therapeutic care. JML also offers adult day programs for local senior residents.
Heritage at Falmouth is Cape Cod Healthcare’s 56-room assisted living facility located on the Falmouth Hospital campus. It offers residents easy access to care facilities including the Hospital, medical offices, C-Lab, JML Care Center, and the VNA of Cape Cod.

CCHC’s Centers for Behavioral Health provides extensive inpatient and outpatient psychiatric services on the campus of Cape Cod Hospital, and community-based outpatient services for children, adolescents, adults, and geriatric residents.

The Medical Affiliates of Cape Cod is the Cape Cod Healthcare employed physician group which has over 30 primary and specialty care practices across the service area.

Emerald Physicians, a member of Cape Cod Healthcare, provides primary and specialty care to more than 38,000 patients across Cape Cod.

Cape Cod Healthcare provides health care access points at 88 locations across Cape Cod.

**Federally Qualified Community Health Centers:** Barnstable County has four federally-qualified and funded health centers. They are the Community Health Center of Cape Cod, Duffy Health Center, Harbor Community Health Center–Hyannis, and Outer Cape Health Services. Cape Cod Healthcare, Cape Cod Hospital and Falmouth Hospital work collaboratively and strategically with these health centers and provide annual support for initiatives and programs that align with identified regional health priorities.

**Community Health and Human Service Organizations:** Barnstable County has a strong and diversified sector of community organizations that provide critical health and human services to residents of the service area. Cape Cod Hospital and Falmouth Hospital provide annual support to numerous organizations through a strategic grants program. Additionally, the Hospitals develop and collaborate across a broad spectrum of community health projects and coalitions to address regional health priorities.

**Indian Health Services:** Since 2007, the Mashpee Wampanoag Tribe has expanded health service offerings with the mission to provide quality, comprehensive health care to Native American members and their families in a culturally sensitive manner. A full service health center is located in Mashpee, MA and features medical, dental and behavioral health services. The Mashpee Wampanoag Tribe’s 2,000 registered members and members of all other federally recognized Native American and Alaskan Native tribes can access health services through the health center. Health care is free for tribal members who receive their care on-site through funding by Indian Health Services, a branch of the U.S. Department of Health and Human Services.

*Please refer to Appendix F for a list of existing healthcare facilities and resources in the community with services that align to the significant health needs identified in this assessment.*
Cape Cod Hospital
Falmouth Hospital
Joint Implementation Plan
FY2017-FY2019
Goal FY17-19: Improve chronic and infectious disease prevention and management to meet the growing needs of an aging and at-risk population.

Sub-priorities FY17-FY19:

Objectives FY17-19:

- Expand hospital-based efforts to screen, detect and treat chronic and infectious diseases,
- Support regional chronic and infectious disease surveillance and education programs,
- Support community-based chronic and infectious disease self-management initiatives, and
- Strengthen connection between clinical and community-based disease services.

Key Initiatives FY17-19:

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*Facilities: Cape Cod Hospital (CCH), Falmouth Hospital (FH)*

Anticipated Outcomes of Key Initiatives FY17-19:

- Community Benefits grants will support community-based programs that improve chronic and infectious disease management,
- Hospital admissions and readmissions attributed to chronic and infectious diseases will decrease due to improvements in chronic disease self-management by patients,
- Clinical services and community-based programs to address age-related dementias, Alzheimer’s disease, and Parkinson’s disease will be strengthened and expanded, and
- Regional screening and testing rates for cancer, diabetes, heart disease, Hepatitis C, and HIV/AIDS will increase, and
- Regional disease surveillance programs will improve inter-agency collaboration and communication.
Hospital Programs and Allocation of Resources:
As Cape Cod Hospital and Falmouth Hospital consider new programs, alignment with implementation strategies will be assessed. Existing programs and initiatives that align with stated priorities and goals will continue, and in some cases, be expanded. Examples of these programs include:

- Cancer education, prevention and screening initiatives,
- Cancer support groups and survivorship activities,
- Diabetes education and nutrition counseling,
- Heart health and heart disease prevention education,
- Neurological testing and coordination of care for progressive and degenerative disorders, including Parkinson’s disease and Alzheimer’s disease,
- Regional Hepatitis C, HIV/AIDS, Tuberculosis disease management and surveillance, and
- Project site for engagement in care program for persons living with AIDS.

The hospitals will support new community-based projects through targeted grant investments, dedicated in-kind services, and participation in local, regional and statewide coalitions to meet desired outcomes of the goals and objectives of this chronic and infectious disease priority.

Potential Collaborators and Geographic Reach of Activities:
Cape Cod Hospital and Falmouth Hospital will build strategic partnerships and collaborations with other health care and human service organizations across the service area to meet objectives and expand geographic reach of programs. Potential collaborators include, but are not limited to, the following identified organizations:

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<tr>
<th>Organization</th>
<th>Upper Cape</th>
<th>Mid-Cape</th>
<th>Lower and Outer Cape</th>
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<tr>
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</tbody>
</table>
Goal FY17-19: Strengthen regional health services and community resources for individuals with mental health conditions, substance use, co-occurring disorders, and comorbidities.

Sub-Priorities FY17-19:

Objectives FY17-19:
- Expand hospital-based services and collaborations to assess and address mental health, substance use disorders and co-occurring disorders in various care settings,
- Strengthen the regional network of care for individuals with mental health and substance use disorders,
- Expand care coordination for pregnant women with substance use disorders and their newborns, and
- Support behavioral health prevention, education, and training activities through regional coalitions.

Key Initiatives FY17-19:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Facilities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Support community-based programs to improve access and navigation of behavioral health services through the Community Benefits grant program.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>2</td>
<td>Support regional coalition-led mental health and substance use education, prevention and training initiatives across the region.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>3</td>
<td>Provide a continuum of prenatal to post-delivery services specific to the needs of pregnant women with substance use disorders and their newborns.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>4</td>
<td>Support regional efforts to expand the availability of Medication Assisted Treatment and other pathways to recovery for individuals with substance use disorders.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>5</td>
<td>Expand hospital-based expertise, capacity, and use of telemedicine technology to assess and address acute mental health, substance use disorders and co-occurring disorders in emergency departments and inpatient and outpatient settings.</td>
<td>CCH</td>
</tr>
</tbody>
</table>

*Facilities: Cape Cod Hospital (CCH), Falmouth Hospital (FH)

Expected Outcomes FY17-19:
- Community Benefits grants will fund efforts to expand access and navigation of behavioral health services in the region,
- Clinical and community-based partnerships will expand access to treatment for substance use disorders,
- Telemedicine will be used to expand access to behavioral health services in the region, and
- Hospital and Community Benefits staff will provide leadership and support to regional coalitions addressing mental health and substance use.
**Hospital Programs and Allocation of Resources:**

As Cape Cod Hospital and Falmouth Hospital consider new programs, alignment with implementation strategies will be assessed. Existing programs and initiatives that align with stated priorities and goals will continue, and in some cases, be expanded. Examples of these programs include:

- Adult inpatient psychiatric services and partial-day programs,
- Geriatric, adult and child and adolescent outpatient mental health services,
- Inpatient mental health and addiction consultations for medical and surgical patients,
- Substance use disorder evaluation and treatment planning in emergency departments,
- Moms Do Care program for pregnant women with substance use disorders,
- Community Crisis Line available 24 hours a day, 7 days a week for psychiatric emergencies,
- Hospital staff, community prescribers, and patient addiction education,
- Behavioral health task force and regional substance abuse council leadership, and
- Cape Cod Substance Abuse Prevention and Education Fund to support regional youth-based prevention efforts.

The hospitals will support new community-based projects through targeted grant investments, dedicated in-kind services, and participation in local, regional and statewide coalitions to meet desired outcomes of the goals and objectives of this behavioral health priority.

**Potential Collaborators and Geographic Reach of Activities:**

Cape Cod Hospital and Falmouth Hospital will build strategic partnerships and collaborations with other health care and human service organizations across the service area to meet objectives and expand geographic reach of programs. Potential collaborators include, but are not limited to, the following identified organizations:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Upper Cape</th>
<th>Mid-Cape</th>
<th>Lower and Outer Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS Support Group of Cape Cod</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Barnstable County Regional Substance Abuse Council</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Cape Cod Healthcare’s Centers for Behavioral Health</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Cape Cod Healthcare’s Infectious Disease Clinical Services</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Community Health Center of Cape Cod</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Cape Cod Healthcare’s Regional Cancer Network</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Duffy Health Center</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gandara Mental Health</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Gosnold on Cape Cod</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>MA Department of Public Health</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>MA Department of Mental Health</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Harbor Community Health Center-Hyannis</td>
<td>√</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Outer Cape Health Services</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>PIER Recovery Center</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Samaritans of Cape Cod and the Islands</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>
Goal FY17-FY19: Reduce barriers to care and strengthen the regional health safety net for vulnerable populations.

Sub-priorities FY17-FY19:

Objectives FY17-19:
- Increase availability of primary care and specialty providers in the service area,
- Strengthen strategic collaborations between hospitals and community health centers to improve regional health safety net of care,
- Support initiatives to expand insurance coverage for all residents and specifically for children ages 18 and under, and
- Support programs that reduce barriers to care due to linguistic challenges, financial hardships and health literacy.

Key Initiatives FY17-19:

<table>
<thead>
<tr>
<th>Key Initiatives FY17-19:</th>
<th>Facilities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Recruit primary care and specialty care providers based on annual physician needs assessment of service area.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>2) Increase strategic collaborations with community health centers to expand access to care for vulnerable populations and improve patient coordination.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>3) Support community-based programs that reduce barriers to care, improve access to primary care and specialty care providers, meet medical interpretation needs and improve health literacy through the annual Community Benefits grant program.</td>
<td>CCH, FH</td>
</tr>
<tr>
<td>4) Provide hospital-based programs such as telephone access lines, online physician-finder tools, and assistance with financial counseling and insurance enrollment/re-enrollment to assist residents in accessing and navigating services in the region.</td>
<td>CCH, FH</td>
</tr>
</tbody>
</table>

*Facilities: Cape Cod Hospital (CCH), Falmouth Hospital (FH)

Anticipated Outcomes of Key Initiatives FY17-19:
- Community Benefits grants will support community health centers and community-based organizations to expand access to vulnerable populations,
- Primary care providers and specialists will be recruited based on annual recruitment goals,
- Residents will receive assistance in navigating available services through hospital-based phone and online resources, financial counseling, and health insurance enrollment services,
- Individuals with linguistic barriers to care will receive needed interpreter services, and
- Community-based organizations will be supported to address and improve the health literacy of residents.
**Hospital Programs and Allocation of Resources:**
As Cape Cod Hospital and Falmouth Hospital consider new programs, alignment with implementation strategies will be assessed. Existing programs and initiatives that align with stated priorities and goals will continue, and in some cases, be expanded. Examples of these programs include:

- Hospital-based financial counselors and insurance enrollment assistance,
- Access line services: phone-based and online physician access services,
- Physician recruitment assistance for federally qualified health centers,
- Community-based Interpreter Services for medical appointments,
- Specialty Network for the Uninsured,
- Support of the SHINE program in Council on Aging offices across Cape Cod,
- Community-based health fairs and physician-led workshops on health topics, and
- Workforce partnerships to increase availability of allied health professionals.

The hospitals will support new community-based projects through targeted grant investments, dedicated in-kind services, and participation in local, regional and statewide coalitions to meet desired outcomes of the goals and objectives of this access to care priority.

**Potential Collaborators and Geographic Reach of Activities:**
Cape Cod Hospital and Falmouth Hospital will build strategic partnerships and collaborations with other health care and human service organizations across the service area to meet objectives and expand geographic reach of programs. Examples of potential collaborators include:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Upper Cape</th>
<th>Mid-Cape</th>
<th>Lower and Outer Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable County Department of Human Services</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SHINE program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cape Cod Child Development</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CHNA 27</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Community Health Center of Cape Cod</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duffy Health Center</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harbor Community Health Center-Hyannis</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Helping Our Women</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>MA Department of Public Health</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Outer Cape Health Services</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Specialty Network for the Uninsured</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Goal FY17-FY19: Improve health and disease prevention for all residents of Barnstable County and sustain the wellness of elders and caregivers.

Sub-priorities FY17-FY19:

Objectives FY17-19:
- Increase public awareness about positive health behaviors and disease prevention,
- Strengthen clinical linkages to community-based health and wellness programs,
- Increase physical activity, healthy eating and health screenings for all age cohorts, and
- Sustain wellness of seniors and support their caregivers.

Key Initiatives FY17-19:

| 1. | Support community-based programs that promote wellness, health screenings, elder wellness, and caregiver support through Community Benefits grant programs. | CCH, FH |
| 2. | Expand hospital-based initiatives, including physician-led workshops and health education initiatives, to promote screenings and disease prevention. | CCH, FH |
| 3. | Expand and develop community-based partnerships to promote physical activity and wellness programs to impact all age cohorts in Barnstable County. | CCH, FH |
| 4. | Sponsor activities that will improve access to nutritious food and opportunities for physical activity for vulnerable populations. | CCH, FH |
| 5. | Support community-based chronic disease self-management programs, healthy aging initiatives and quality of life education for seniors and caregivers. | CCH, FH |
| 6. | Support programs that provide caregiver support through social engagement, wellness initiatives, and support groups. | CCH, FH |

*Facilities: Cape Cod Hospital (CCH), Falmouth Hospital (FH)

Anticipated Outcomes of Key Initiatives FY17-FY19:
- Screening rates for chronic and infectious diseases in all age cohorts will increase,
- Community Benefits grants will expand health and wellness education in the region,
- Access to fresh food and safe physical activity will improve for all age cohorts, and
- Collaboration across the regional network of service providers for seniors and caregivers will improve.
Hospital Programs and Allocation of Resources:
As Cape Cod Hospital and Falmouth Hospital consider new programs, alignment with implementation strategies will be assessed. Existing programs and initiatives that align with stated priorities and goals will continue, and in some cases, be expanded. Examples of these programs include:

- Cape Cod Healthcare’s Regional Cancer Network screening and education initiatives,
- Diabetes education and nutrition counseling,
- Healthy Parks, Healthy People,
- Quality of Life Task Force,
- Community-based health fairs and physician-led workshops on health topics, and
- OneCape Health News disease education and prevention topics.

The hospitals will support new community-based projects through targeted grant investments, dedicated in-kind services, and participation in local, regional and statewide coalitions to meet desired outcomes of the goals and objectives of this disease prevention and wellness priority.

Potential Collaborators and Geographic Reach of Activities:
Cape Cod Hospital and Falmouth Hospital will build strategic partnerships and collaborations with other health and human service organizations across the service area to meet objectives and expand geographic reach of programs. Examples of potential collaborators include:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Upper Cape</th>
<th>Mid-Cape</th>
<th>Lower and Outer Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s Family Caregiver Support Center</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Barnstable Prevention Partnership</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cape Cod National Seashore</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>COAST – Councils on Aging Serving Together</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Community Development Partnership</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Community Health Center of Cape Cod</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Cape Cod Hunger Network</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Elder Services of Cape Cod &amp; the Islands</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Emerald Physicians</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hope Dementia and Alzheimer’s Services of Cape Cod and the Islands</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outer Cape Health Services</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Visiting Nurse Association of Cape Cod</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>YMCA Cape Cod</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
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Appendix B: Community Health Needs Assessment Project Activities and Timeline  
Appendix C: Barnstable County Demographic Data  
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Appendix E: Barnstable County, Behavioral Risk Factors Surveillance System Data  
Appendix F: List of Available Health Care Facilities, Services and Community Organizations
Appendix A: Glossary of Terms and Abbreviations

**Age-adjusted Rates:** The age-adjusted rate is the crude rate adjusted for unequal age distributions across different year and geographic comparisons. Age-adjusted rates for each year and geographic area standardize the distribution of ages across all comparisons. The potential effect of an older or younger population is neutralized. Age-adjusted rates are standardized to the U.S. 2000 Census Population unless noted otherwise and are generally reported in rates per 100,000 persons.

**Age-specific Rates:** Similar to crude rates, it is the total number of cases divided by the total population of the specific age group.

**Confidence Intervals:** An interval of values related to a measurement that indicates how precise the measurement is. It is used to indicate the reliability of an estimate and as a comparison tool to evaluate one finding against another. When comparing results, if the confidence intervals overlap there is no statistically significant difference. Confidence intervals are provided where and when available for only the most current comparisons between Barnstable County, Massachusetts and the United States. Confidence intervals at the 95% significance level are shown.

**Crude Rates:** The total number of events divided by the total population and then multiplied by 1,000 or 100,000.

**Prevalence Rates:** The number of cases for a given year divided by the population and then multiplied by 1,000 or 100,000. They are reported as a rate per 1,000 or 100,000 persons. Generally used when reporting disease statistics to help understand how much of the population is affected.

**Incidence Rates:** The number of new cases for a given year divided by the population and then multiplied by 1,000 or 100,000. Generally used when reporting disease statistics to help understand the likelihood or vulnerability of new cases in a population.

**Mortality Rates:** The number of deaths per unit, usually 1,000 or 100,000, of a population in a given place and time.

**MDPH:** Massachusetts Department of Public Health

**ACS:** American Community Survey

**MassCHIP:** Massachusetts Community Health Information Profile

**BRFSS:** Behavioral Risk Factor Surveillance System

**CDC:** Centers for Disease Control and Prevention

**CHNA:** Community Health Needs Assessment

**MA:** Massachusetts

**U.S.:** United States
Appendix B: Community Health Needs Assessment Project Activities and Timeline

Activities and Timeline:

Cape Cod Hospital and Falmouth Hospital selected John Snow, Inc. (JSI) a public health research firm, to conduct objective primary research including health data research, key informant interviews and facilitation of community forums for Barnstable County residents and representatives of health and human service agencies operating within the county.

I. Secondary Data Profile (FY2015)

Over 20 data sources were utilized to collect county and town-level demographic and health statistics including disease incidence and prevalence, hospital utilization, morbidity and mortality, barriers to accessing care, social determinants of health, and behavioral risk factors. Every effort was made to provide data with comparisons to MA and U.S. statistics to identify where demographic and health disparities exist.

II. Key-Informant Interviews (FY2015-FY2016)

As part of the data collection process, over 25 regional leaders with public health expertise or expertise relative to the significant health needs of vulnerable populations in Barnstable County were interviewed in person or by phone. The community health needs assessment process and approach was discussed with each key-informant. A uniform set of questions was utilized for each interview in order to maintain uniformity in qualitative responses. Key-informants were asked about their perception of the significant health issues, target populations, gaps in services, and community settings for health improvement interventions and activities. Input was aggregated and utilized in the development of presentation materials and discussion guides utilized to facilitate community forums.

Interviews were conducted in FY2015 and FY2016 by the staff of JSI. In addition to clinical and hospital leadership, leaders from the following organizations were interviewed as key-informants:

- AIDS Support Group of Cape Cod
- Barnstable County Department of Health and the Environment
- Barnstable County Human Services
- Barnstable Public School District
- Boys & Girls Club of Cape Cod
- Cape Cod Council of Churches
- Child and Family Services
- Community Development Partnership
- Duffy Health Center
- Falmouth Human Services
- Falmouth Service Center
- Family Pantry of Cape Cod
- Harbor Community Health Center- Hyannis
- Mashpee Council on Aging
- Office of Senator Dan Wolf
- Outer Cape Health Services
- Provincetown Council on Aging
- Yarmouth Police Department
- YMCA Cape Cod
III. Community and Health and Human Services Provider Input Forums (FY2015-FY2016)

Statistical data and input through key-informant interviews were augmented by employing a strong community participatory approach to collect input on health needs from the community. Five community input forums were held across Barnstable County with over 140 individuals and 90 community organizations in attendance. The forums provided an opportunity to present statistical health findings to participants, identify gaps in services, and facilitate dialogue to identify other needs and target populations most impacted by health issues. Participants were provided a post-forum electronic survey to identify and rank health priorities in our region. Feedback and input from the key-informant interviews, and attendees of the community and provider forums, was used to inform the selection and prioritization of significant health needs. The forum dates and locations are listed below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/03/15</td>
<td>Falmouth Public Library, 300 Main Street, Falmouth, MA</td>
</tr>
<tr>
<td>12/04/15</td>
<td>Orleans Community Center, 44 Main Street, Orleans, MA</td>
</tr>
<tr>
<td>12/07/15</td>
<td>Cultural Center of Cape Cod, 307 Old Main Street, South Yarmouth, MA</td>
</tr>
<tr>
<td>01/06/16</td>
<td>Cape Cod Hospital, 27 Park Street, Hyannis, MA</td>
</tr>
<tr>
<td>01/11/16</td>
<td>Falmouth Hospital, 100 Ter Heun Drive, Falmouth, MA</td>
</tr>
</tbody>
</table>

IV. Useful Websites

For more demographics and other health data please see these useful websites:

www.bchumanservices.net
www.CDC.gov
www.Census.gov
www.healthypeople.gov
www.mass.gov/dph/masschip
www.samhsa.gov
www.nih.gov
Appendix C: Barnstable County Demographic Data

Data compiled by John Snow, Inc.


Note: Numbers listed in parenthesis reflect the confidence interval range. A confidence interval is an interval of values related to a measurement that indicates how precise the measurement is. It is used to indicate the reliability of an estimate and as a comparison tool to evaluate one finding against another. When comparing results, if the confidence intervals overlap there is no statistically significant difference, however, if they do not overlap than there is a statistically significant difference.

Barnstable County town-level demographic data is available by request by contacting communitybenefits@capecodhealth.org.
## Appendix C: Barnstable County Demographic Data

*Orange cells indicate higher Barnstable County rates than MA.*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population (count)</td>
<td>6,605,058</td>
<td>215,449</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Counts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3,197,502</td>
<td>102,689</td>
</tr>
<tr>
<td>Female</td>
<td>3,407,556</td>
<td>112,760</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>48.4% (48.3-48.5%)</td>
<td>47.7% (47.6-47.8%)</td>
</tr>
<tr>
<td>Female</td>
<td>51.6% (51.5-51.7%)</td>
<td>52.3% (52.2-52.4%)</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Counts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>5,000,518</td>
<td>197,710</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>413,926</td>
<td>4,824</td>
</tr>
<tr>
<td>Hispanic</td>
<td>655,863</td>
<td>5,036</td>
</tr>
<tr>
<td>Non-Hispanic Asian</td>
<td>365,973</td>
<td>2,455</td>
</tr>
<tr>
<td>Non-Hispanic Native Hawaiian/Pacific Islander</td>
<td>1,577</td>
<td>3</td>
</tr>
<tr>
<td>Non-Hispanic American Indian/Alaskan Native</td>
<td>7,934</td>
<td>874</td>
</tr>
<tr>
<td>Other race</td>
<td>159,267</td>
<td>4,547</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>75.7% (75.6-75.8%)</td>
<td>91.8% (91.6-92.0%)</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>6.3% (6.2-6.4%)</td>
<td>2.2% (2.1-2.3%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9.9% (9.8-10%)</td>
<td>2.3% (N/A)</td>
</tr>
<tr>
<td>Non-Hispanic Asian</td>
<td>5.5% (5.4-5.6%)</td>
<td>1.1% (1.0-1.2%)</td>
</tr>
<tr>
<td>Non-Hispanic Native Hawaiian/Pacific Islander</td>
<td>0% (0-0.1%)</td>
<td>0% (0.0-0.1%)</td>
</tr>
<tr>
<td>Non-Hispanic American Indian/Alaskan Native</td>
<td>0.1% (0-0.2%)</td>
<td>.4% (0.3-0.5%)</td>
</tr>
<tr>
<td>Other race</td>
<td>2.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Percent of the population foreign born</td>
<td>15% (14.9-15.1%)</td>
<td>6.8% (6.2-7.4%)</td>
</tr>
<tr>
<td>Percent of 5+ year olds that speak language other than English in the home</td>
<td>21.9% (21.8-22%)</td>
<td>8.1% (7.5-8.7%)</td>
</tr>
<tr>
<td>Indicators</td>
<td>MA</td>
<td>Barnstable County</td>
</tr>
<tr>
<td>----------------</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4 yrs</td>
<td>366,296</td>
<td>8,859</td>
</tr>
<tr>
<td>5-9 yrs</td>
<td>386,310</td>
<td>9,023</td>
</tr>
<tr>
<td>10-14 yrs</td>
<td>399,362</td>
<td>11,305</td>
</tr>
<tr>
<td>15-19 yrs</td>
<td>464,514</td>
<td>11,818</td>
</tr>
<tr>
<td>20-24 yrs</td>
<td>477,862</td>
<td>10,214</td>
</tr>
<tr>
<td>25-34 yrs</td>
<td>872,220</td>
<td>17,599</td>
</tr>
<tr>
<td>35-44 yrs</td>
<td>869,517</td>
<td>21,839</td>
</tr>
<tr>
<td>45-54 yrs</td>
<td>1,006,344</td>
<td>33,373</td>
</tr>
<tr>
<td>55-59 yrs</td>
<td>446,342</td>
<td>17,975</td>
</tr>
<tr>
<td>60-64 yrs</td>
<td>382,511</td>
<td>17,955</td>
</tr>
<tr>
<td>65+ yrs</td>
<td>933,780</td>
<td>55,489</td>
</tr>
<tr>
<td>Population 18 years and older</td>
<td>5,197,008</td>
<td>179,139</td>
</tr>
<tr>
<td>Population less than 18 years of age</td>
<td>1,408,050</td>
<td>36,310</td>
</tr>
<tr>
<td>Percentages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4 yrs</td>
<td>5.5% (5.4-5.6%)</td>
<td>4.1% (4.0-4.2%)</td>
</tr>
<tr>
<td>5-9 yrs</td>
<td>5.8% (5.7-5.9%)</td>
<td>4.2% (3.9-4.5%)</td>
</tr>
<tr>
<td>10-14 yrs</td>
<td>6% (5.9-6.1%)</td>
<td>5.2% (4.9-5.5%)</td>
</tr>
<tr>
<td>15-19 yrs</td>
<td>7% (6.9-7.1%)</td>
<td>5.5% (5.4-5.6%)</td>
</tr>
<tr>
<td>20-24 yrs</td>
<td>7.2% (7.1-7.3%)</td>
<td>4.7% (4.6-4.8%)</td>
</tr>
<tr>
<td>25-34 yrs</td>
<td>13.2% (13.1-13.3%)</td>
<td>8.2% (8.1-8.3%)</td>
</tr>
<tr>
<td>35-44 yrs</td>
<td>13.2% (13.1-13.3%)</td>
<td>10.1% (10.0-10.2%)</td>
</tr>
<tr>
<td>45-54 yrs</td>
<td>15.2% (15.1-15.3%)</td>
<td>15.5% (15.4-15.6%)</td>
</tr>
<tr>
<td>55-59 yrs</td>
<td>6.8% (6.7-6.9%)</td>
<td>8.3% (8.0-8.6%)</td>
</tr>
<tr>
<td>60-64 yrs</td>
<td>5.8% (5.7-5.9%)</td>
<td>8.3% (8.0-8.6%)</td>
</tr>
<tr>
<td>65+ yrs</td>
<td>14.1% (14-14.2%)</td>
<td>25.8% (24.8-26.8%)</td>
</tr>
<tr>
<td>Population 18 years and older</td>
<td>78.7% (78.6-78.8%)</td>
<td>83.1% (NA)</td>
</tr>
</tbody>
</table>
Appendix C: Barnstable County Demographic Data

Orange cells indicate higher Barnstable County rates than MA.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Households</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of households with children less than 18 years old</td>
<td>30.9% (30.7-31.1%)</td>
<td>20.4% (19.7-21.1%)</td>
</tr>
<tr>
<td>Percent of single female households with own children less than age 18 years present</td>
<td>6.9% (6.8-7%)</td>
<td>5.4% (4.9-5.9%)</td>
</tr>
<tr>
<td>Percent of households with one or more people 65+ years old</td>
<td>26.3% (26.2-26.4%)</td>
<td>40.3% (39.8-40.8%)</td>
</tr>
<tr>
<td>Percent with high school degree or more education</td>
<td>89.4% (89.3-89.5%)</td>
<td>94.5% (94.0-95.0%)</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of families living below poverty level</td>
<td>8.1% (7.9-8.3%)</td>
<td>6.0% (5.3%-6.7%)</td>
</tr>
<tr>
<td>Percent of persons living below poverty level</td>
<td>11.4% (11.2-11.6%)</td>
<td>9.3% (8.6-10.0%)</td>
</tr>
<tr>
<td>Percent of single female households with children living below poverty level</td>
<td>34.9% (34-35.8%)</td>
<td>30.3% (25.4-35.2%)</td>
</tr>
<tr>
<td>Percent of children &lt;18 yrs old living below poverty level</td>
<td>14.9% (14.6-15.2%)</td>
<td>14.5% (12.2-16.8%)</td>
</tr>
<tr>
<td>Percent living with a disability</td>
<td>11.3% (11.2-11.4%)</td>
<td>12.7% (12.2-13.2%)</td>
</tr>
<tr>
<td>Percent without health insurance</td>
<td>4% (3.9-4.1%)</td>
<td>5.1% (4.6-5.6%)</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of housing units</td>
<td>2,808,549</td>
<td>160,486</td>
</tr>
<tr>
<td>Percent of housing units that are vacant</td>
<td>9.9% (9.7-10.1%)</td>
<td>40.6% (39.8-41.4%)</td>
</tr>
<tr>
<td>Percent of housing units that are owner occupied</td>
<td>62.7% (62.5-62.9%)</td>
<td>79.0% (78.1-79.9%)</td>
</tr>
<tr>
<td>Median house value of owner-occupied units</td>
<td>$330,100</td>
<td>$366,700</td>
</tr>
<tr>
<td>Among owner occupied units, monthly owner costs &gt;35% of total income</td>
<td>28.3% (28-28.6%)</td>
<td>38.0% (36.6-39.4%)</td>
</tr>
<tr>
<td>Percent of housing units that are renter occupied</td>
<td>37.3% (37.1-37.5%)</td>
<td>21.0% (20.1-21.9%)</td>
</tr>
<tr>
<td>Among renter occupied units, rent 35% or more of total income</td>
<td>40.5% (40.1-40.9%)</td>
<td>48.4% (46.0-50.8%)</td>
</tr>
</tbody>
</table>
Appendix D: Barnstable County Disease and Health Indicator Data

Data compiled by John Snow, Inc.

Data Sources:

- **Substance Use Treatment Admissions Data**: MDPH: MassCHIP, Massachusetts Bureau of Substance Abuse Services, 2013.
- **Hospitalization Data**: MDPH: MassCHIP, Massachusetts Hospital Inpatient Discharges, 2008-2012.
- **Emergency Department Discharge Data**: MDPH: MassCHIP, Massachusetts Hospital Emergency Visit Discharges, 2008-2012.
- **Cancer Data**: MDPH: MassCHIP, Massachusetts Cancer Registry, 2007-2011.
- **Lyme disease and Hepatitis C Incidence Data**: MDPH: MassCHIP, Massachusetts Communicable Disease Program, Epidemiology Program, 2013.
- **Chlamydia Incidence Data**: MDPH: MassCHIP, Massachusetts Communicable Disease Program, Sexually Transmitted Disease Program, 2012.

Note: The numbers listed in parenthesis reflect the confidence interval range. A confidence interval is an interval of values related to a measurement that indicates how precise the measurement is. It is used to indicate the reliability of an estimate and as a comparison tool to evaluate one finding against another. When comparing results, if the confidence intervals overlap there is no statistically significant difference, however, if they do not overlap there is a statistically significant difference.

*Barnstable County town-level disease and health indicator data is available by request by contacting communitybenefits@capecodhealth.org.*
# Appendix D: Barnstable County Disease and Health Indicator Data

Orange cells indicate higher rates in Barnstable County than MA.

## Substance Use Treatment Admissions Data: Rates are age-adjusted per 100,000 persons.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total treatment admissions</td>
<td>1590.82 (1581.34-1600.30)</td>
<td>2214.13 (2152.05-2276.21)</td>
</tr>
<tr>
<td>Treatment when alcohol was primary substance</td>
<td>506.93 (501.55-512.31)</td>
<td>1009.54 (967.37-1051.71)</td>
</tr>
<tr>
<td>Treatment when primary substance was injected</td>
<td>676.43 (670.22-682.64)</td>
<td>745.46 (709.17-781.75)</td>
</tr>
</tbody>
</table>

## Substance Abuse and Mental Health Hospitalizations: Rates are age-adjusted per 100,000 persons.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol/substance-related hospitalizations</td>
<td>337.58 (335.62-339.55)</td>
<td>219.14 (209.98-228.30)</td>
</tr>
<tr>
<td>Mental disorders hospitalizations</td>
<td>837.85 (834.74-840.95)</td>
<td>598.80 (583.34-614.26)</td>
</tr>
<tr>
<td>Mental disorders all related hospitalizations</td>
<td>3839.51 (3833.23-3845.78)</td>
<td>3321.68 (3289.83-3353.54)</td>
</tr>
<tr>
<td>Opioid-related hospitalizations</td>
<td>315.55 (313.63-317.48)</td>
<td>261.80 (251.27-272.34)</td>
</tr>
<tr>
<td>Alcohol/substance use related ED discharges</td>
<td>858.83 (855.6-861.97)</td>
<td>1061.90 (1040.75-1083.06)</td>
</tr>
<tr>
<td>Mental health ED discharges</td>
<td>2091.86 (2086.95-2096.78)</td>
<td>2750.88 (2717.08-2784.67)</td>
</tr>
<tr>
<td>Mental health related ED discharges</td>
<td>4990.42 (4983.00-4997.84)</td>
<td>5886.50 (5838.64-5934.36)</td>
</tr>
<tr>
<td>Opioid-related ED discharges</td>
<td>259.63 (257.87-261.39)</td>
<td>257.27 (246.31-268.22)</td>
</tr>
</tbody>
</table>

## Substance Abuse Mortality: Rates are per 100,000 persons.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
</table>

## Infectious Disease: Rates are age-adjusted per 100,000 persons unless otherwise noted.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia Incidence: Crude rate per 100,000 persons</td>
<td>357.27 (352.74-361.81)</td>
<td>208.95 (189.69-228.21)</td>
</tr>
<tr>
<td>Hepatitis C Incidence: Crude rate per 100,000 persons</td>
<td>118.90 (116.29-121.51)</td>
<td>143.62 (127.65-159.60)</td>
</tr>
<tr>
<td>Lyme disease Incidence: Crude rate per 100,000 persons</td>
<td>61.96 (60.08-63.85)</td>
<td>86.17 (73.80-98.55)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infectious Disease: Rates are age-adjusted per 100,000 persons unless otherwise noted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia/Influenza</td>
</tr>
<tr>
<td>Hospitalizations</td>
</tr>
<tr>
<td>Deaths</td>
</tr>
</tbody>
</table>

## HIV/AIDS

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS hospitalizations</td>
<td>12.43 (12.05-12.81)</td>
<td>4.87 (3.52-6.22)</td>
</tr>
<tr>
<td>HIV/AIDS-related hospitalizations (primary or secondary diagnosis)</td>
<td>42.76 (42.06-43.46)</td>
<td>17.02 (14.61-19.43)</td>
</tr>
<tr>
<td>HIV/AIDS deaths: Rate is the crude rate per 100,000.</td>
<td>1.58 (1.45-1.72)</td>
<td>0.92 (0.43-1.41)</td>
</tr>
</tbody>
</table>
Appendix D: Barnstable County Disease and Health Indicator Data

Orange cells indicate higher rates in Barnstable County than MA.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department (ED) discharges: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All cause ED discharges</td>
<td>36897.60 (36881-6914)</td>
<td>50073.08 (49980-50165)</td>
</tr>
<tr>
<td>Alcohol/substance use related ED discharges</td>
<td>858.83 (855.69-861.97)</td>
<td>1061.90 (1040.75-1083.06)</td>
</tr>
<tr>
<td>Mental health ED discharges</td>
<td>2091.86 (2086.95-2096.78)</td>
<td>2750.88 (2717.08-2784.67)</td>
</tr>
<tr>
<td>Mental health related ED discharges</td>
<td>4990.42 (4983.00-4997.84)</td>
<td>5886.50 (5838.64-5934.36)</td>
</tr>
<tr>
<td>Opioid-related ED discharges</td>
<td>259.63 (257.87-261.39)</td>
<td>257.27 (246.31-268.22)</td>
</tr>
<tr>
<td>Asthma ED discharges</td>
<td>573.49 (570.81-576.17)</td>
<td>654.17 (636.86-671.47)</td>
</tr>
<tr>
<td>Asthma-related ED discharges</td>
<td>1443.98 (1439.78-1448.18)</td>
<td>1503.63 (1477.89-1529.36)</td>
</tr>
<tr>
<td>Heart Disease ED discharges</td>
<td>214.98 (213.46-216.50)</td>
<td>297.39 (288.37-306.41)</td>
</tr>
<tr>
<td>Major Cardiovascular Disease ED discharges</td>
<td>402.11 (400.03-404.18)</td>
<td>531.13 (519.02-543.24)</td>
</tr>
</tbody>
</table>

Cancers

Cancer (all types): Rates are age-adjusted rates per 100,000 persons.

| Incidence | 502.27 (499.96-504.57) | 546.53 (535.39-557.67) |
| Hospitalizations | 371.30 (369.33-373.27) | 344.34 (335.28-353.40) |
| Hospitalizations (Emergency Department) | 15.58 (15.17-15.99) | 19.35 (17.10-21.60) |
| Deaths | 169.88 (168.56-171.20) | 166.34 (160.62-172.06) |

Breast cancer (invasive; women only): Rates are age-adjusted rates per 100,000 persons.

| Incidence | 135.71 (134.06-137.35) | 163.70 (155.00-172.40) |
| Hospitalizations | 39.08 (38.18-39.98) | 61.83 (56.29-67.37) |
| Hospitalizations (Emergency Department) | 1.93 (1.73-2.13) | 2.33 (1.30-3.36) |

Colorectal cancer: Rates are age-adjusted rates per 100,000 persons.

| Incidence | 42.28 (41.61-42.95) | 40.06 (37.11-43.01) |
| Hospitalizations | 38.41 (37.77-39.04) | 35.02 (32.25-37.80) |
| Hospitalizations (Emergency Department) | 0.83 (0.73-0.92) | 1.00 (0.50-1.51) |
| Deaths | 14.34 (13.95-14.72) | 12.60 (11.00-14.20) |

Lung cancer: Rates are age-adjusted per 100,000 persons.

| Incidence | 69.32 (68.46-70.19) | 64.39 (60.76-68.03) |
| Hospitalizations | 47.86 (47.14-48.57) | 39.50 (36.67-42.33) |
| Hospitalizations (ED) | 2.66 (2.49-2.83) | 3.30 (2.47-4.12) |
| Deaths | 46.77 (46.07-47.48) | 42.80 (39.92-45.68) |

Prostate cancer (invasive; men only): Rates are age-adjusted per 100,000 persons.

| Incidence | 151.04 (149.16 - 152.92) | 190.01 (180.64 - 199.38) |
| Hospitalizations | 58.15 (57.04 - 59.25) | 59.07 (53.69 - 64.45) |
| Hospitalizations (ED) | 1.18 (1.00 - 1.35) | N/A |
## Appendix D: Barnstable County Disease and Health Indicator Data

*Orange cells indicate higher rates in Barnstable County than MA.*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chronic Diseases</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes Hospitalizations</td>
<td>135.03 (133.81-136.26)</td>
<td>106.04 (100.06-112.01)</td>
</tr>
<tr>
<td>Diabetes-related hospitalizations</td>
<td>1845.55 (1841-1849.83)</td>
<td>1372.86 (1355.15-1390.57)</td>
</tr>
<tr>
<td>Deaths</td>
<td>13.74 (13.36 - 14.11)</td>
<td>11.60 (10.08-13.13)</td>
</tr>
<tr>
<td>Hypertension: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension hospitalizations</td>
<td>45.49 (44.79-46.19)</td>
<td>22.92 (20.51-25.32)</td>
</tr>
<tr>
<td>Hypertension-related hospitalizations</td>
<td>4025.13 (4019-4031.03)</td>
<td>3306.29 (3281-3331.57)</td>
</tr>
<tr>
<td>Deaths</td>
<td>5.51 (5.28-5.74)</td>
<td>4.87 (3.99-5.76)</td>
</tr>
<tr>
<td>Major cardiovascular disease (CVD): Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>1343.98 (1340-1347.61)</td>
<td>1120.91 (1105.86-1135.96)</td>
</tr>
<tr>
<td>Deaths</td>
<td>193.42 (192.06-194.78)</td>
<td>188.64 (182.95-194.34)</td>
</tr>
<tr>
<td>Cerebrovascular: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>227.67 (226.13-229.20)</td>
<td>223.66 (216.92-230.39)</td>
</tr>
<tr>
<td>Deaths</td>
<td>30.74 (30.19-31.28)</td>
<td>30.84 (28.57-33.10)</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPD hospitalizations</td>
<td>364.35 (362.34-366.36)</td>
<td>244.73 (236.59-252.87)</td>
</tr>
<tr>
<td>Deaths</td>
<td>32.83 (32.25-33.41)</td>
<td>32.25 (29.87-34.64)</td>
</tr>
<tr>
<td>Asthma: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma hospitalizations</td>
<td>151.92 (150.56-153.27)</td>
<td>88.20 (82.35-94.05)</td>
</tr>
<tr>
<td>Asthma-related hospitalizations</td>
<td>899.18 (895.97-902.39)</td>
<td>656.96 (641.58-672.34)</td>
</tr>
<tr>
<td>Deaths</td>
<td>0.72 (0.63-0.80)</td>
<td>0.64 (0.28-1.00)</td>
</tr>
<tr>
<td>Alzheimer's disease: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>20.64 (20.20-21.08)</td>
<td>25.88 (23.89-27.87)</td>
</tr>
<tr>
<td>Parkinson's disease: Rates are age-adjusted per 100,000 persons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>5.90 (5.65 - 6.14)</td>
<td>7.26 (6.19-8.34)</td>
</tr>
<tr>
<td>Other Hospitalizations and Injuries: Rates are age-adjusted per 100,000 persons unless otherwise noted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All causes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>671.77 (669.23 - 674.30)</td>
<td>643.98 (632.69 - 655.28)</td>
</tr>
<tr>
<td>Deaths: Rates are age-adjusted for men.</td>
<td>812.42 (808.04 - 816.81)</td>
<td>783.01 (763.98 - 802.05)</td>
</tr>
<tr>
<td>Deaths: Rates are age-adjusted for women.</td>
<td>568.14 (565.10 - 571.17)</td>
<td>532.06 (518.70 - 545.42)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>11569.70 (11559-11580)</td>
<td>10505.51 (10449-10561)</td>
</tr>
<tr>
<td>Hospitalizations: Rates are age-adjusted for men.</td>
<td>10889.24 (10875-10903)</td>
<td>9786.00 (9712.2-9859.7)</td>
</tr>
<tr>
<td>Hospitalizations: Rates are age-adjusted for women.</td>
<td>12372.78 (12357-12387)</td>
<td>11340.87 (11256-11424)</td>
</tr>
</tbody>
</table>
### Appendix D: Barnstable County Disease and Health Indicator Data

*Orange cells indicate higher rates in Barnstable County than MA.*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Hospitalizations and Injuries: Rates are age-adjusted per 100,000 persons unless otherwise noted.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>premature mortality &lt;75 year old population</td>
<td>275.94 (274.17-277.72)</td>
<td><strong>278.17</strong> (269.05-287.28)</td>
</tr>
<tr>
<td>Injuries/poisonings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hospitalizations</td>
<td>852.06 (849.04-855.08)</td>
<td><strong>824.05</strong> (808.45-839.64)</td>
</tr>
<tr>
<td>deaths</td>
<td>42.05 (41.37-42.74)</td>
<td><strong>53.72</strong> (49.29-58.15)</td>
</tr>
<tr>
<td>Falls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hospitalizations</td>
<td>366.90 (364.96-368.83)</td>
<td><strong>370.98</strong> (361.77-380.19)</td>
</tr>
<tr>
<td>Emergency Department discharges</td>
<td><strong>2763.94</strong> (2758-2769)</td>
<td><strong>3448.71</strong> (3411.99-3485.43)</td>
</tr>
</tbody>
</table>
Appendix E: Behavioral Health Risk Factor Surveillance System (BRFSS)

Data compiled by John Snow, Inc.


BRFSS notes:
All estimates are crude prevalence estimates and not age-adjusted rates. All county estimates are direct estimates weighed using statewide rates. The direct estimates can be inaccurate to the extent that the population make-up of the county differs from that of the state.
Approximately 1,886 respondents to the BRFSS had missing data for county of residence. No attempt was made to impute values and assign the records or data to a county.

The numbers listed in parenthesis reflect the confidence interval range. A confidence interval is an interval of values related to a measurement that indicates how precise the measurement is. It is used to indicate the reliability of an estimate and as a comparison tool to evaluate one finding against another. When comparing results, if the confidence intervals overlap there is no statistically significant difference, however, if they do not overlap than there is a statistically significant difference.
## Appendix E: MA and Barnstable County Behavioral Risk Factor Surveillance System (BRFSS)

**Orange cells indicate higher Barnstable County rates than MA.**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA (95% CI)</th>
<th>Barnstable County (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of population &lt;65 years old without health insurance</td>
<td>4.9 (4.2-5.6)</td>
<td>t</td>
</tr>
<tr>
<td>Percent with personal provider</td>
<td>87.7 (86.8-88.7)</td>
<td>91.6 (88.4-94.8)</td>
</tr>
<tr>
<td>Percent with routine checkup with a doctor in the past year</td>
<td>77.7 (76.6-78.8)</td>
<td>82.1 (78.3-85.8)</td>
</tr>
<tr>
<td>Percent that did not see a doctor in the past year due to cost</td>
<td>8.5 (7.8-9.3)</td>
<td>6.1 (4.0-8.2)</td>
</tr>
<tr>
<td>Percent that reported fair/poor health</td>
<td>13.8 (12.9-14.6)</td>
<td>9.9 (7.4-12.4)</td>
</tr>
<tr>
<td>Percent self-identified as homosexual, bisexual, or other</td>
<td>4.8 (4.1-5.4)</td>
<td>5.3 (3.0-7.6)</td>
</tr>
<tr>
<td>Percent that reported poor physical health ≥15 days in the past 30 days</td>
<td>9.7 (8.9-10.4)</td>
<td>9.0 (6.7-11.4)</td>
</tr>
<tr>
<td>Percent that reported poor mental health ≥15 days in the past 30 days</td>
<td>11.2 (10.3-12.0)</td>
<td>9.2 (6.5-11.9)</td>
</tr>
<tr>
<td>Percent that ate 5+ servings per fruits and vegetables per day</td>
<td>19.0 (18.0-20.1)</td>
<td>20.7 (15.5-26.0)</td>
</tr>
<tr>
<td>Percent that report doing physical activity/exercise during past 30 days</td>
<td>80.2 (79.4-81.1)</td>
<td>84.7 (81.7-87.8)</td>
</tr>
<tr>
<td>Percent overweight or obese</td>
<td>58.0 (56.7-59.3)</td>
<td>61.1 (56.5-65.6)</td>
</tr>
<tr>
<td>Percent obese</td>
<td>23.6 (22.5-24.8)</td>
<td>20.5 (16.9-24.0)</td>
</tr>
<tr>
<td>Percent binge drinking</td>
<td>19.4 (18.3-20.5)</td>
<td>11.9 (8.8-15.0)</td>
</tr>
<tr>
<td>Percent heavy drinking</td>
<td>7.5 (6.7-8.2)</td>
<td>8.5 (6.2-10.9)</td>
</tr>
<tr>
<td>Percent always wears seat belts</td>
<td>80.9 (79.8-82.1)</td>
<td>83.6 (80.2-87.1)</td>
</tr>
<tr>
<td>Percent current smokers</td>
<td>16.6 (15.6-17.7)</td>
<td>15.1 (11.8-18.5)</td>
</tr>
<tr>
<td>Percent using smokeless tobacco</td>
<td>1.5 (1.1-1.8)</td>
<td>t</td>
</tr>
<tr>
<td>Percent planning to quit smoking in next 30 days</td>
<td>39.0 (34.2-43.7)</td>
<td>t</td>
</tr>
<tr>
<td>Percent attempted to quit smoking in past year</td>
<td>59.7 (56.3-63.1)</td>
<td>64.4 (53.0-75.7)</td>
</tr>
<tr>
<td>Percent ever had asthma</td>
<td>16.8 (15.8-17.8)</td>
<td>13.7 (10.6-16.8)</td>
</tr>
<tr>
<td>Percent currently with asthma</td>
<td>11.4 (10.5-12.2)</td>
<td>8.3 (5.9-10.8)</td>
</tr>
<tr>
<td>Percent ever diagnosed with COPD</td>
<td>5.8 (5.2-6.4)</td>
<td>4.8 (3.3-6.4)</td>
</tr>
<tr>
<td>Percent with activity limitation due to health problem</td>
<td>27.0 (25.8-28.1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Percent that had cholesterol checked in the past 5 years</td>
<td>84.0 (82.9-85.0)</td>
<td>90.7 (86.7-94.6)</td>
</tr>
<tr>
<td>Percent that had cholesterol checked and told it was high</td>
<td>36.5 (35.2-37.7)</td>
<td>39.1 (32.8-45.4)</td>
</tr>
<tr>
<td>Percent ever told have diabetes</td>
<td>8.5 (7.9-9.2)</td>
<td>7.3 (5.3-9.3)</td>
</tr>
<tr>
<td>Percent ever told have high blood pressure/hypertension</td>
<td>29.4 (28.3-30.5)</td>
<td>37.1 (31.3-42.9)</td>
</tr>
<tr>
<td>Percent of those with hypertension, currently taking blood pressure medication</td>
<td>75.8 (73.9-77.8)</td>
<td>77.4 (69.1-85.7)</td>
</tr>
<tr>
<td>Percent ever told had a myocardial infarction (MI)</td>
<td>5.2 (4.7-5.8)</td>
<td>5.8 (4.0-7.7)</td>
</tr>
</tbody>
</table>
## Appendix E: MA and Barnstable County Behavioral Risk Factor Surveillance System (BRFSS)

*Orange cells indicate higher Barnstable County rates than MA.*

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MA</th>
<th>Barnstable County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent ever told had angina/coronary heart disease</td>
<td>4.7 (4.2-5.2)</td>
<td>4.9 (3.2-6.5)</td>
</tr>
<tr>
<td>Percent ever told had a stroke</td>
<td>3.3 (2.8-3.8)</td>
<td>3.3 (1.8-4.8)</td>
</tr>
<tr>
<td>Percent doctor diagnosed arthritis</td>
<td>24.3 (23.3-25.3)</td>
<td>33.6 (29.6-37.5)</td>
</tr>
<tr>
<td>Percent ever diagnosed with cancer</td>
<td>11.1 (10.4-11.8)</td>
<td>18.7 (15.7-21.7)</td>
</tr>
<tr>
<td>Percent ever diagnosed with depression</td>
<td>19.7 (18.7-20.7)</td>
<td>18.2 (14.9-21.5)</td>
</tr>
<tr>
<td>Percent of adults 65+ that ever had pneumonia vaccination</td>
<td>69.9 (67.6-72.2)</td>
<td>64.6 (58.1-71.1)</td>
</tr>
<tr>
<td>Percent of adults 65+ that had a flu shot in the past year</td>
<td>66.1 (63.8-68.4)</td>
<td>63.3 (57.1-69.4)</td>
</tr>
<tr>
<td>Percent of adults 60+ that ever had shingles vaccine</td>
<td>29.9 (28.0-31.9)</td>
<td>36.6 (31.3-41.8)</td>
</tr>
<tr>
<td>Percent that visited the dentist in the past year</td>
<td>76.2 (75.3-77.1)</td>
<td>83.4 (78.7-88.2)</td>
</tr>
<tr>
<td>Percent with six or more teeth missing</td>
<td>14.9 (14.2-15.6)</td>
<td>14.9 (10.8-19.0)</td>
</tr>
<tr>
<td>Percent of adults &lt;65 years ever tested for HIV</td>
<td>44.2 (42.6-45.8)</td>
<td>45.4 (39.1-51.6)</td>
</tr>
<tr>
<td>Percent of women 18+ years old with Pap test in the past 3 years</td>
<td>77.6 (76.3-78.8)</td>
<td>71.3 (63.8-78.8)</td>
</tr>
<tr>
<td>Percent of women 40+ years old with mammogram in the past 2 years</td>
<td>84.6 (83.5-85.7)</td>
<td>69.8 (60.7-79.0)</td>
</tr>
<tr>
<td>Percent of men 50+ years old with PSA test in the past year (2010)</td>
<td>60.0 (57.5-62.5)</td>
<td>N/A</td>
</tr>
<tr>
<td>Percent of adults 50+ years old with blood stool test in past 2 years</td>
<td>16.3 (15.3-17.3)</td>
<td>14.8 (11.5-18.1)</td>
</tr>
<tr>
<td>Percent of adults 50+ years old with colonoscopy or sigmoidoscopy in past 5 years</td>
<td>61.4 (60.1-62.8)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*t: Insufficient Data

N/A: Data not available
Appendix F: List of Available Health Care Facilities, Services and Community Organizations

The following is a partial list of health care services, facilities and community organizations that provide services in Barnstable County related to the significant health needs identified through the Community Health Needs Assessment.

Priority 1: Chronic and Infectious Disease

*Cape Cod Healthcare (CCHC) Services:*

- Cape Cod Hospital
- Falmouth Hospital
- JML Care Center
- Medical Affiliates of Cape Cod (MACC)
- Emerald Physicians
- CCHC Heart and Vascular Institute
- CCHC Neurosciences and Pain Services
- CCHC Orthopedic Services
- CCHC Rehabilitation Services
- CCHC Regional Cancer Network
- Davenport-Mugar Cancer Center
- Clark Cancer Center
- CCHC Wound Care Center
- CCHC Diabetes Education Services
- CCHC Infectious Disease Clinical Services
- CCHC Laboratory Services

*Community-Based Services:*

- AIDS Support Group of Cape Cod
- Alzheimer’s Family Support Center of Cape Cod
- American Cancer Society
- American Heart Association
- American Lung Association
- Barnstable County Public Health Nurse
- Barnstable County Department of Health and Environment
- Barnstable Prevention Partnership
- Cape & Islands Emergency Medical Services System Inc.
- Cape Cod Cooperative Extension
- Cape Cod Regional Tobacco Control Program
- Cape Wellness Collaborative
- COAST (COA’s Serving Together)
- Community Health Center of Cape Cod
- Duffy Health Center
- Elder Services of Cape Cod and the Islands
- Falmouth Family Planning
- Glenna Kohl Fund for Hope
- Harbor Community Health Center-Hyannis
- Health Imperatives-Hyannis Family Planning
- Healthy Living Cape Cod
- Helping Our Women
- Hope Dementia and Alzheimer’s Services of Cape Cod & the Islands
- Hope Health
- Lyme Awareness of Cape Cod
- MA Department of Public Health
- My Life, My Health: Cape Cod Coalition
- National Multiple Sclerosis Society
- Oral Health Excellence Collaborative
- Parkinson Support Network
- Sight Loss Services
- Spaulding Rehabilitation Hospital Cape Cod
- Team Maureen
- Visiting Nurse Association (VNA) of Cape Cod
- YMCA Diabetes Resource Center
# Priority 2: Behavioral Health

**Cape Cod Healthcare (CCHC) Services:**
- CCHC Centers for Behavioral Health
- Cape Cod Hospital Psychiatric Center
- Cape Cod Hospital

**Community-Based Services:**
- AIDS Support Group of Cape Cod: Gosnold on Cape Cod
- Allied Health Providers: Habit OPCO Cape Cod
- Arbor Counseling: Justice Resource Institute
- Barnstable County Regional Substance Abuse Council: Learn to Cope
- Baybridge Clubhouse: Parent Supporting Parents
- Bayview Associates- South Shore Mental Health: MA Department of Mental Health
- Behavioral Health Provider Coalition of Cape Cod & the Islands: MA Department of Public Health
- Cape and Islands Suicide Prevention Coalition: Maternal Depression Task Force
- Cape Cod Council of Churches: Moms Do Care Project
- Cape Cod Hoarding Task Force: Mothers and Infants Recovery Network
- Caron Treatment Center: National Alliance on Mental Illness (NAMI)
- Child and Family Services: Recovering Youth Coalition
- Children’s Cove: Recovery Without Walls
- Community Health Center of Cape Cod: PIER Recovery Center
- Cove Clubhouse: Samaritans on Cape Cod and the Islands
- Duffy Health Center: Substance Use in Pregnancy Task Force
- Falmouth Prevention Partnership: South Bay Mental Health
- Family Continuity: Vinfen
- Fellowship Health Services
- Gandara Mental Health
**Priority 3: Access to Healthcare**

Cape Cod Healthcare (CCHC) Services:

- Cape Cod Hospital
- CCHC Financial Counseling
- Cape Cod Hospital OB/GYN Clinic
- CCHC Family Birthplace
- Cape Cod Hospital Pain Center
- Falmouth Hospital
- Falmouth Hospital Outpatient Services
- Falmouth Hospital Outpatient Surgery Center
- Falmouth Hospital Imaging at Community Health Center of Cape Cod
- Bourne Health Center
- Fontaine Medical Center
- Oppenheim Medical Building
- Rogers Outpatient Center
- Stoneman Outpatient Center
- Wilkens Medical Complex
- CCHC Urgent Care Centers in Falmouth, Harwich, Hyannis and Sandwich
- Medical Affiliates of Cape Cod (MACC)
- Primary Care Internists
- Emerald Physicians

Community-Based Services:

- A Baby Center
- Barnstable County Human Rights Commission
- Barnstable County Department of Human Services
- Barnstable County Public Health Nurse
- Cape Cod Center for Women
- Cape Cod Council of Churches
- Cape Cod Immigrant Center
- Cape Cod Medical Reserve Corps
- Cape Cod WIC
- Cape Disability Network
- Cape and Islands Veterans Outreach Center
- Cape Organization for the Rights of the Disabled
- COAST (COA’s Serving Together)
- Community Action Committee of Cape Cod and Islands
- Community Health Center of Cape Cod
- Duffy Health Center
- Elder Services of Cape Cod and the Islands
- Falmouth Human Services
- Falmouth Service Center
- Harbor Community Health Center-Hyannis
- Helping Our Women
- Housing Assistance Corporation
- Independence House
- Lower Cape Outreach Council
- MA Department of Veterans Services
- Mashpee Wampanoag Health Service Unit—Indian Health Services
- Outer Cape Health Services
- Parish Nurse Ministries of Cape Cod
- Serving the Health Needs of Everyone (SHINE)
- Sight Loss Services
- Spaulding Rehabilitation Hospital Cape Cod
- Specialty Network for the Uninsured
- The Family Pantry
- Town of Sandwich Public Health Nurse
- U.S. Department of Veterans Affairs Medical Center-Hyannis
- WE CAN
Priority 4: Disease Prevention and Wellness

Cape Cod Healthcare (CCHC) Services:
- Cape Cod Hospital
- Falmouth Hospital
- JML Care Center
- Visiting Nurse Association (VNA) of Cape Cod
- Heritage at Falmouth
- Medical Affiliates of Cape Cod
- Emerald Physicians
- CCHC Heart and Vascular Institute
- CCHC Neuroscience and Pain Services
- CCHC Orthopedic Services
- CCHC Rehabilitation Services
- CCHC Regional Cancer Network
- Davenport-Mugar Cancer Center
- Clark Cancer Center
- CCHC Wound Care Center
- CCHC Infectious Disease Clinical Services
- CCHC Diabetes Education Services
- CCHC Radiology/Imaging Services
- CCHC Laboratory Services

Community-Based Services:
- Alzheimer’s Family Support Center of Cape Cod
- Barnstable Council on Aging
- Barnstable County Dept. of Human Services
- Barnstable County Public Health Nurse
- Barnstable Prevention Partnership
- Bourne Council on Aging
- Boys & Girls Club of Cape Cod
- Brewster Council on Aging
- Calmer Choice
- Cape Cod Child Development
- Cape Cod Cooperative Extension
- Cape Cod Hunger Network
- Cape Cod National Seashore
- Cape and Islands Suicide Prevention Coalition
- Chatham Council on Aging
- COAST (COA’s Serving Together)
- Community Development Partnership
- Community Health Center of Cape Cod
- COMPASS VNA Adult Day Health Program
- Dennis Council on Aging
- Duffy Health Center
- Eastham Council on Aging
- Elder Services of Cape Cod and the Islands
- Falmouth Council on Aging
- Falmouth Service Center
- The Family Pantry of Cape Cod
- Harbor Community Health Center-Hyannis
- Harwich Council on Aging
- Healthy Living Cape Cod
- Hope Dementia & Alzheimer’s Services
- Mashpee Council on Aging
- Mashpee Wampanoag Health Service Unit
- Orleans Council on Aging
- Outer Cape Health Services
- Provincetown Council on Aging
- Sandwich Council on Aging
- Sight Loss Services
- Spaulding Rehabilitation Hospital Cape Cod
- Sustainable CAPE
- Trade Winds Adult Day Health Program
- Truro Council on Aging
- Wellfleet Council on Aging
- Yarmouth Council on Aging
- YMCA Cape Cod