



**Martha's Vineyard Hospital
FY2019
Community Health Needs Assessment**

July 17, 2019

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| Contents: | Page: |
|--|--------------|
| Executive Summary | 3 |
| I. Background and Methodology | 6 |
| II. Findings: | 9 |
| A. Secondary Data Summary | 9 |
| B. Quality of Life Survey Results | 22 |
| C. 2019 MVH Public Forum Themes | 41 |
| D. Key Informant Interview Findings | 42 |
| III. Conclusions and next steps | 56 |
| Appendix A: Community Benefit Advisory Committee members | 58 |
| Appendix B: MVH Quality of Life Survey | 59 |
| Appendix C: Key Informant Interview Guide | 72 |
| Appendix D: Organizations Represented by Key Informants | 73 |

Martha's Vineyard Hospital FY2019 Community Health Needs Assessment

Executive Summary

Background and Methodology: Martha's Vineyard Hospital (MVH) has delivered high quality, compassionate medical care to the Vineyard's full- and part-time residents and its visitors since its incorporation in 1921. As a member of Partners HealthCare System and an affiliate of Massachusetts General Hospital, MVH patients have access to the finest community-based medicine and most advanced specialty care in the world.

Because Martha's Vineyard is a resort community, the population swells in the summer with day trippers, weekly renters, summer residents, and seasonal workers (many who are students from abroad). The labor market is highly seasonal and the inventory and cost of rental housing are influenced by the demand for housing by visitors and the proportion of island housing owned and inhabited by summer-only residents. Thus, year-round residents, including MVH providers and staff, face challenges accessing affordable year-round (i.e., 12-month) rentals. Because Martha's Vineyard is an island, those who require health care not available on the island must take a ferry to the mainland and often drive (to the Cape or Boston) to access care. Such "off-island" care comes with added expenses (e.g., transportation, possible overnight accommodations) and ferry reservations, particularly in the high season, can be difficult to secure in a timely manner.

The primary population served by MVH is comprised of the island's year-round residents and includes two prominent minority groups, members of the Wampanoag tribe and a substantial Brazilian community. Although summer residents sometimes require emergency and acute care, this report focuses on the needs of Martha's Vineyard's year-round residents.¹

MVH's FY19 community health needs assessment (CHNA) kicked off on April 22, 2019 with a meeting of the hospital's new 15-member Community Benefit Advisory Committee (CBAC) representing a range of health and human services organizations and offering varied expertise about populations and/or health issues on the island. The group reviewed the Attorney General's revised community benefit guidelines, discussed data collection strategies and the CHNA timeline, and identified populations and issues for inclusion in the CHNA, which consisted of:

- (1) **A review of secondary data** from multiple publicly available local, state, and federal sources (e.g., U.S. Census Bureau, Massachusetts Department of Public Health, Martha's Vineyard Commission) which provided demographic, health, and behavioral health data, as well as data on social determinants of health.
- (2) **The Martha's Vineyard Quality of Life Survey** was administered primarily as an online survey in English and Portuguese with some surveys completed in hard copy. The survey was administered between May 21 and June 14, 2019 and received 346 responses (327 in English and 19 in Portuguese). Data analysis was conducted using Excel and SPSS.
- (3) **The Martha's Vineyard Hospital Annual Public Forum**, held on June 4, 2019 and attended by roughly 60 community members, included a question and answer period in which residents discussed health-related concerns. The meeting video, available on the MVH website, was

¹ At its July 16 meeting, the CBAC recognized a need to understand more about the needs of seasonal residents and whether they have unmet health care needs.

analyzed to identify common and divergent themes among the concerns expressed by attendees.

- (4) **Key Informant Interviews** were conducted with 16 representatives from a range of organizations on the island who could offer perspectives on the island's health needs in general, as well as expertise on specific populations and/or health issues. The interviews were up to 60 minutes long, conducted via telephone, and used a semi-structured interview tool. The interview data were reviewed for common and divergent themes and to identify illustrative quotes that demonstrated the major issues affecting the health of island residents.

CHNA Findings and Priorities and Next Steps: Although the CHNA identified multiple health issues and social determinants that impact the health and behavioral health of sub-populations on the island, a few major themes emerged from the research based on the priorities of residents in the survey and community forum, as identified by key informants, and supported by the secondary data.

- (1) **Quality and affordable housing:** Insufficient inventory and access to quality affordable year-round housing has a significant impact on the health and behavioral health of many island residents and their ability to remain on the island. It also complicates the ability of organizations on the island to hire and retain much-needed clinicians and staff to provide health and behavioral health services.
- (2) **Access to care and coordination of services:** There are a number of services island residents cannot secure on the island, but gaining access to care on the mainland is costly and challenging, particularly when ambulance transport is needed from the hospital to an off-island facility and in the summer months when ferry reservations are difficult to get. Coordination of care among providers, particularly those on- and off-island, is challenging but essential. Because providers and residents do not have a full understanding of the range of services available on the island, some may be traveling off-island to access care unnecessarily.
- (3) **Behavioral health:** Mental health and substance use disorders are growing concerns and there are too few behavioral health clinicians and services available on the island, especially for Portuguese-speaking residents. There are also not enough clinicians trained to work with children and youth. Several populations appear to be at risk for behavioral health problems, including young adults; those who are homeless; isolated seniors and people with disabilities; and children and youth who've experienced family and housing instability and other adverse life events.
- (4) **Aging-related services:** The demographics of the island are shifting as many younger adults leave to pursue opportunities on the mainland that are not available to them on the Vineyard and as more seniors retire to the island. Although efforts are underway to improve services for this population, there are types and levels of care needed that are not available or plentiful enough to meet the needs of the island's growing elder population, including home-based and mental health and dementia care.

As part of the CHNA process, MVH was also charged with creating (or identifying an existing) inventory of community programs that can be used in strategic implementation planning by MVH and the CBAC. Martha's Vineyard is fortunate to **First Stop MV**, a comprehensive directory of community resources, that can be used for this purpose.²

The CBAC reviewed the CHNA report and, at its July 16, 2019 meeting, discussed the assessment findings. In addition to accepting the major themes as priorities for strategic implementation planning phase, the group also identified other issues it considers important and worthy of more discussion. These issues are: Ensuring the needs of the Brazilian community, tribal community, and seasonal residents are explored and better understood; understanding better the role of poverty and food insecurity in the lives of islanders; preventing and ensuring early treatment of Lyme disease and other tick-borne illnesses; improving access to dental services; and cultivating community leaders from among younger residents/succession planning. The report was shared and a summary of the themes and priorities presented to the MVH Board of Directors on July 26 to ensure the Board's ongoing engagement in the hospital's community benefit work.

Phase II of MVH's FY2019 community benefit process will be to engage hospital leaders, the CBAC, and other community partners, including selectmen and health agents, in strategic implementation planning to address the priorities identified in the CHNA.

² First Stop MV was developed and run for its first three years by Healthy Aging Martha's Vineyard (formerly Healthy Aging Task Force.) In 2016, First Stop MV was transferred to MV Community Services, which runs it today. Healthy Aging Martha's Vineyard raised the initial funds to design and develop First Stop MV. The island's six towns have funded staffing and maintenance throughout. Dukes County provided space for the first year.

Martha's Vineyard Hospital FY2019 Community Health Needs Assessment

I. Background and Methodology

Martha's Vineyard Hospital (MVH) was incorporated in 1921. Since that time, MVH has delivered high quality, compassionate medical care to Vineyard's year-round and seasonal residents, as well as those who visit the island. MVH is a member of the Partners HealthCare System and an affiliate of Massachusetts General Hospital, which allows MVH to provide patients with seamless access to the finest community-based medicine and most advanced specialty care in the world.

Martha's Vineyard is unique in several respects, particularly because it is an island and a desirable summer destination for tourists. The population swells considerably in the summer. Day trippers, weekly renters, summer residents, and seasonal workers, many of whom are students from abroad, contribute to a summer population that is estimated to be five to ten times that of the year-round population. The labor market is highly seasonal with unemployment at its highest in the off-season. The demand for housing by seasonal visitors and the proportion of island housing owned and inhabited by summer-only residents influences both the inventory and cost of rental housing. Year-round residents, including MVH providers and staff, often face challenges accessing affordable year-round (i.e., 12-month) rentals. Those who require health care not available on the island must take a ferry to the mainland and often drive to the Cape or Boston to access care. "Off-island" care comes with added expenses (e.g., transportation, possible overnight accommodations) and ferry reservations, particularly in the high season, can be difficult to secure in a timely manner.

The primary population served by MVH is comprised of the island's year-round residents and includes two prominent minority groups, members of the Wampanoag tribe and a substantial Brazilian community. Although summer residents sometimes require emergency and acute care, this report focuses on the needs of Martha's Vineyard's year-round residents

The FY19 community health needs assessment (CHNA) was conducted in accordance with the Massachusetts Attorney General's (AG) 2018 Community Benefit Guidelines for Non-Profit Hospitals.³ The FY19 process kicked off on April 22, 2019 with a meeting of the hospital's new Community Benefit Advisory Committee (CBAC), a 15-person group (see Appendix A for CBAC membership) comprised of representatives from several health and human services organizations who offer varied expertise about populations and/or health issues on the island. The group reviewed the community benefit guidelines, discussed data collection strategies and the CHNA timeline, and identified populations and issues that

MVH Mission Statements

Hospital Mission

To safeguard the health of Martha's Vineyard residents (year-round, seasonal, visitors) by providing or arranging for the provision of high quality, accessible medical care. This care will be provided to all, regardless of their ability to pay, in an atmosphere that fosters respect and compassion.

Community Benefit Mission

Martha's Vineyard Hospital commits to ongoing collaboration with its valued community partners to identify and address unmet health needs. Together, we will strive to improve the health of disadvantaged populations on the island through needs assessment and the development, implementation, and resourcing of a community benefit plan.

³ Available at:

<https://www.mass.gov/files/documents/2018/02/07/Updated%20Hospital%20Community%20Benefits%20Guidelines.pdf>

should be included in the CHNA (i.e., in survey questions, areas of expertise among key informant interview participants).

The CHNA findings were derived from four data sources:

- (1) The secondary data** review relied upon several existing data sources for information on health indicators, as well as social, economic, and environmental factors in the community. The sources included: the U.S. Census Bureau American Community Survey, the Martha's Vineyard Commission, the US Bureau of Labor Statistics, the US Department of Housing and Urban Development, the US Department of Agriculture, the University of Washington Institute for Health Metrics and Evaluation, and the Massachusetts Department of Public Health.
- (2) The Martha's Vineyard Quality of Life Survey** was adapted from a tool developed by the Conference of Boston Teaching Hospitals for use by Boston hospitals in its upcoming joint CHNA process. The survey was translated into Portuguese and administered online using Survey Monkey in both English and Portuguese and via hard copy in a range of community settings. MVH worked with partners across the island to disseminate the survey link and to create access to hard copy surveys for patients, clients, and constituents of these agencies and organizations. The survey was launched on May 21, 2019 and closed at 5:00pm on Friday, June 14, 2019. A total of 346 surveys were completed (327 in English and 19 in Portuguese⁴). All but 15 surveys were completed online. Fifteen (12 in English and 3 in Portuguese) were completed on paper and then entered into the Survey Monkey database. Data analysis was conducted using Excel and SPSS. The English version of the survey can be found in Appendix B.
- (3) The Martha's Vineyard Hospital Annual Public Forum** was held on June 4, 2019 and attended by roughly 60 community members. Following a presentation by MVH President and CEO Denise Schepici, community members were encouraged to ask questions and discuss concerns. The meeting video (available at: <https://www.mvhospital.com/events/all/2019/2019-mvh-wnr-public-forum>) was analyzed to identify common and divergent themes from the Q&A portion of the forum for inclusion in the CHNA report.
- (4) Key Informant Interviews** were conducted with 16 individuals representing a range of organizations and offering varied expertise about specific populations on the island and/or health issues experienced by island residents, including cancer survivors, un/under-insured, people with disabilities, families with children, youth, young adults, seniors, renters, the LGBTQ community, and people experiencing homelessness and housing instability, mental health issues, or substance use disorders. Among the key informants were a service provider to and member of the Wampanoag tribe and another representing the island's Brazilian community. Although a single key informant may have been engaged to share expertise on a given issue (e.g., housing or cancer) or about a population (the Wampanoag Tribe, the LGBTQ community), more than one key informant discussed the needs and challenges described in this report. It is important to note that the perspectives of the key informants may not be shared by all members of a given population or those affected by a given issue. The interviews were conducted via telephone using a semi-structured interview tool (See Appendix C) and each lasted between 45 and 60 minutes. Because participants were offered anonymity as a condition for participating in the interviews, their names are not listed herein. Only the organizational names are provided in Appendix D. The data from the interviews were reviewed for common

⁴ The CBAC member believe that there may have been reluctance on the part of the Brazilian community to participate in the survey and provide data about themselves, particularly their residency status. Thus, they feel, additional effort is needed to understand the needs of this community.

and divergent themes and illustrative quotes that demonstrate the issues affecting the health of island residents.

First Stop MV, a comprehensive and searchable directory of community resources (available at: <http://firststopmv.org/directory/>). First Stop MV was developed and run for its first three years by Healthy Aging Martha's Vineyard (formerly Healthy Aging Task Force.) In 2016, First Stop MV was transferred to MV Community Services, which runs it today. Healthy Aging Martha's Vineyard raised the initial funds to design and develop First Stop MV. The island's six towns have funded staffing and maintenance throughout. The directory allows users to search for resources related to basic needs (e.g., clothing, food, housing/shelter, transportation), financial assistance, health and wellness services, mental health and substance use resources, senior services, services for children and youth, employment and volunteer opportunities, educational and social services, family caregiver support, legal assistance, family planning, and emergency services. Creating an inventory of existing community programs is an important component of the CHNA process. Martha's Vineyard is fortunate to have this existing resource; not only does First Stop MV help residents and service providers connect individuals in need with community resources, but it will serve as an invaluable tool for understanding which services are available on the island when developing the strategic implementation plan to address the community's health priorities.

The CHNA report was reviewed and then discussed at the CBAC's July 16, 2019 meeting. The major themes were selected as planning priorities. Additionally, the group identified other issues it considers important and worthy of more discussion, including: Ensuring the needs of the Brazilian community, tribal community, and seasonal residents are explored and better understood; understanding better the role of poverty and food insecurity in the lives of islanders; preventing and ensuring early treatment of Lyme disease and other tick-borne illnesses; improving access to dental services; and cultivating community leaders from among younger residents/succession planning. The report was shared and a summary of the themes and priorities presented to the MVH Board of Directors on July 26 to ensure the Board's ongoing engagement in the hospital's community benefit work.

The CHNA findings are provided in section II below. Section III offers conclusions about the island's health needs and describes the priorities identified by the CBAC.

II. Findings

A. Secondary Data

1. Demographics - Population Information

Martha's Vineyard is an 88 square mile island located four miles off the coast of Cape Cod and is only accessible by plane and ferry/boat. Dukes County is made up of the six towns on the island of Martha's Vineyard plus Gosnold, a town that encompasses the Elizabeth Islands off the Vineyard's eastern coast. Because Gosnold makes up such a small fraction of the Dukes County population, we use the terms "Dukes County" and "Martha's Vineyard" interchangeably.

The service area for Martha's Vineyard Hospital includes Aquinnah (which includes the Wampanoag-Aquinnah Land Trust), Chilmark, Edgartown, Gosnold, Oak Bluffs, Tisbury, and West Tisbury. According to the 2017 American Community Survey (ACS), Dukes County has 17,352 year-round residents. Differing estimates of the summer population exist. The Martha's Vineyard Commission⁵ estimates that the summer population grows to over 93,000 people, whereas the Chamber of Commerce suggests that the island population could spike to as many as 200,000 people.⁶ The statistics in this report relate to the year-round resident population.

As seen in Table 1, Dukes County's population density of 160 residents per square mile is much lower than the Massachusetts population density of 839 per square mile. Dukes County is classified as a rural area by the Health Resources and Services Administration (HRSA). Oak Bluffs and Tisbury are the most densely populated towns; each occupies less than eight percent of the Island's total land area but accounts for nearly a quarter of the total county population.

| | |
|----------------------|-------|
| Massachusetts | 839.4 |
| Dukes County | 160.2 |
| Oak Bluffs | 632.2 |
| Tisbury | 622.6 |
| Edgartown | 160.0 |
| West Tisbury | 115.9 |
| Aquinnah | 60.6 |
| Chilmark | 48.0 |
| Gosnold | 5.7 |

Data source: US Census Bureau, ACS. 2017; Retrieved from Community Commons 5/19/19

2. Age and Sex

The median age in Dukes County is 45.9 years old, which is almost six years higher than the Massachusetts median of 39.4 years. As seen in Figure 1, the difference reflects the county's larger elder population and the smaller number of residents ages 0-34 (especially ages 15-34). The fastest

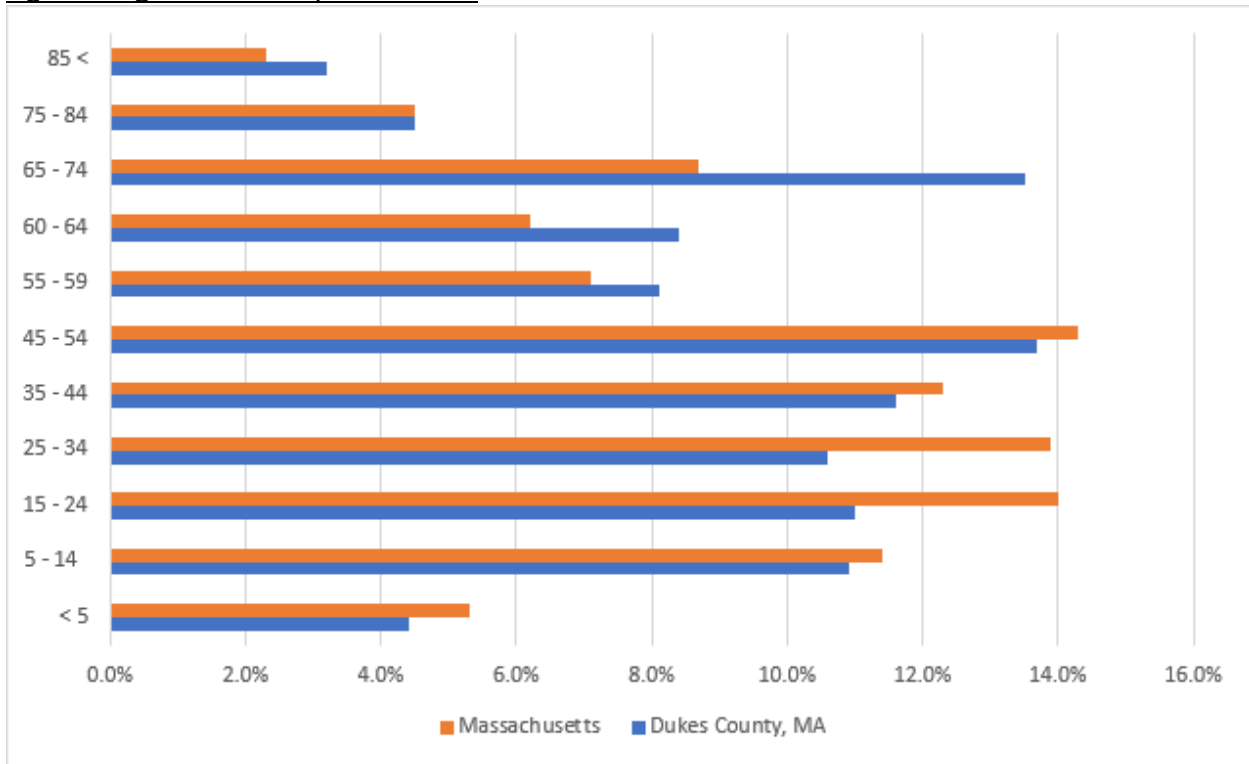
⁵ Data available at:

http://www.mvcommission.org/sites/default/files/docs/web01_MVSP%20FINAL%20PRINT%202019-03-21-3.pdf

⁶ Data available at: <https://www.mvy.com/island-information.html>

growing age group in both the state and the county is the population aged 65-74. The percentage of adults over 65 years in Dukes County is proportionally greater than Massachusetts.

Figure 1: Age Distribution, 2013 – 2017



Data Source: ACS (ACS) 5-Year Estimates, 2013-2017; Retrieved from US Census Bureau on 5/19/19

The towns of Oak Bluffs and West Tisbury have the highest concentration of the elder population (65+) in Dukes County. According to the Martha’s Vineyard (MV) Commission:

“In keeping with the overall pattern in Dukes County, every town in 2016 had a higher percentage of people ages 65–74. Oak Bluffs and West Tisbury, by comparison, had a higher percentage of people in the upper range (85 and over), while Edgartown and Tisbury generally followed the countywide pattern. The higher percentage of people over 80 living down-Island and in West Tisbury may reflect the broader range of elder services in those towns.”

The MV Commission projects that:

“The county will see a significant rise in its elder population over the coming decades—including in Chilmark and Aquinnah, whose overall populations are projected to decline. The county’s population over the age of 85 is expected to triple by 2060, with the steepest rise between 2030 and 2050 as Baby Boomers enter the fold. A similar increase is a forecast for the population over 65, although at a slower rate.”

As seen in Table 2, Dukes County has a higher proportion of female residents than Massachusetts. This is likely the result of the over 65 population which skews female.

| Table 2: Sex (percent of total population), 2013-2017 | | |
|---|--------------|---------------|
| | Dukes County | Massachusetts |
| Male | 47.9% | 48.5% |
| Female | 52.1% | 51.5% |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Census Bureau on 5/19/19

3. Race and Ethnicity

Compared to the state, Dukes County has larger proportions of American Indians and people listing two or more races. Dukes County has proportionally fewer Hispanics than Massachusetts (See Table 3).

| Table 3: Racial and Ethnic Diversity (percent of total population), 2013-2017 | | |
|---|--------------|---------------|
| | Dukes County | Massachusetts |
| White | 88.1 | 78.9 |
| Black or African American | 3.9 | 7.4 |
| Asian | 0.3 | 6.3 |
| Native American, Alaska Native | 1.6 | 0.2 |
| Native Hawaiian, Pacific Islander | 0 | 1.1 |
| Two or more races | 4.8 | 3.1 |
| Hispanic or Latino | 1.6 | 11.2 |
| Non-Hispanic or Latino | 98.4 | 88.8 |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Census Bureau on 5/19/19

Racial and ethnic diversity varies across towns (See Table 4). According to the MV Commission:

“The year-round population in Dukes County appears less diverse than in the state, but also shows regional variation—from Gosnold, where 100 percent of residents are white; to Aquinnah where 40 percent identify as American Indian; and Tisbury, where 7.4 percent identify as African American. (Both latter cases exceed the state average.)”

| Table 4: Racial and Ethnic Diversity by Town (percent of total population), 2016 | | | | | | | |
|--|----------|----------|-----------|---------|------|---------|---------|
| | Aquinnah | Chilmark | Edgartown | Gosnold | O.B. | Tisbury | W. Tis. |
| White | 40.1 | 90.4 | 90.2 | 100.0 | 88.0 | 86.9 | 97.2 |
| Black, African-American | 0.5 | 2.9 | 2.4 | 0.0 | 3.3 | 7.4 | 1.6 |
| American Indian, Alaskan Native | 39.9 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| Asian | 0.8 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.5 |
| Native Hawaiian, Pacific Islander | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Another Race | 2.0 | 0.0 | 1.4 | 0.0 | 3.0 | 1.2 | 0.3 |
| Two or more races | 16.6 | 6.6 | 5.7 | 0.0 | 4.9 | 3.9 | 0.4 |
| Hispanic or Latino | 0.0 | 4.4 | 2.2 | 0.0 | 2.2 | 0.3 | 1.1 |

Data Source: ACS 5-Year Estimates; Retrieved from Martha’s Vineyard Commission on 5/19/19; Note: O.B. = Oak Bluffs, W. Tis. = West Tisbury

4. Income, Poverty, and Employment

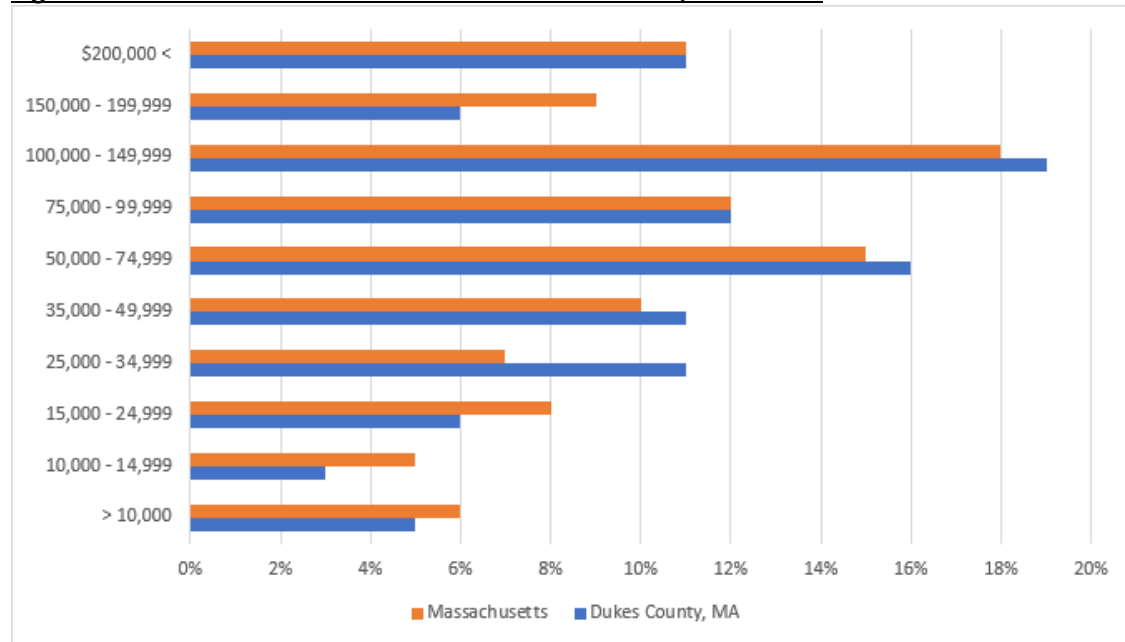
As shown in Table 5, the per capita income in the past 12 months (in 2017 dollars) in Dukes County (for year-round residents) was \$42,956, which is higher than that of the state (\$39,913). The median household income of Dukes County (\$67,535), however, is lower than that of Massachusetts (\$74,167). The proportion of Dukes County residents living below the Federal Poverty Line (FPL) is 8.4%, which is lower than the average in Massachusetts (11.1%).

| | Dukes County | Massachusetts |
|--|--------------|---------------|
| Per Capita Income | \$42,956 | \$39,913 |
| Median Household Income | \$67,535 | \$74,167 |
| Population Below 100% Federal Poverty Level (FPL) | 8.4% | 11.1% |
| Households receiving SNAP Benefits | 3.3% | 12.3% |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Census Bureau on 5/19/19

Figure 2 shows the income distribution per year for households of year-round residents. Dukes County has a significantly higher proportion of households that make between \$25,000 and \$34,000 than Massachusetts, whereas Dukes County has a significantly lower proportion of households that make between \$150,000 and \$199,999 than Massachusetts households in general.

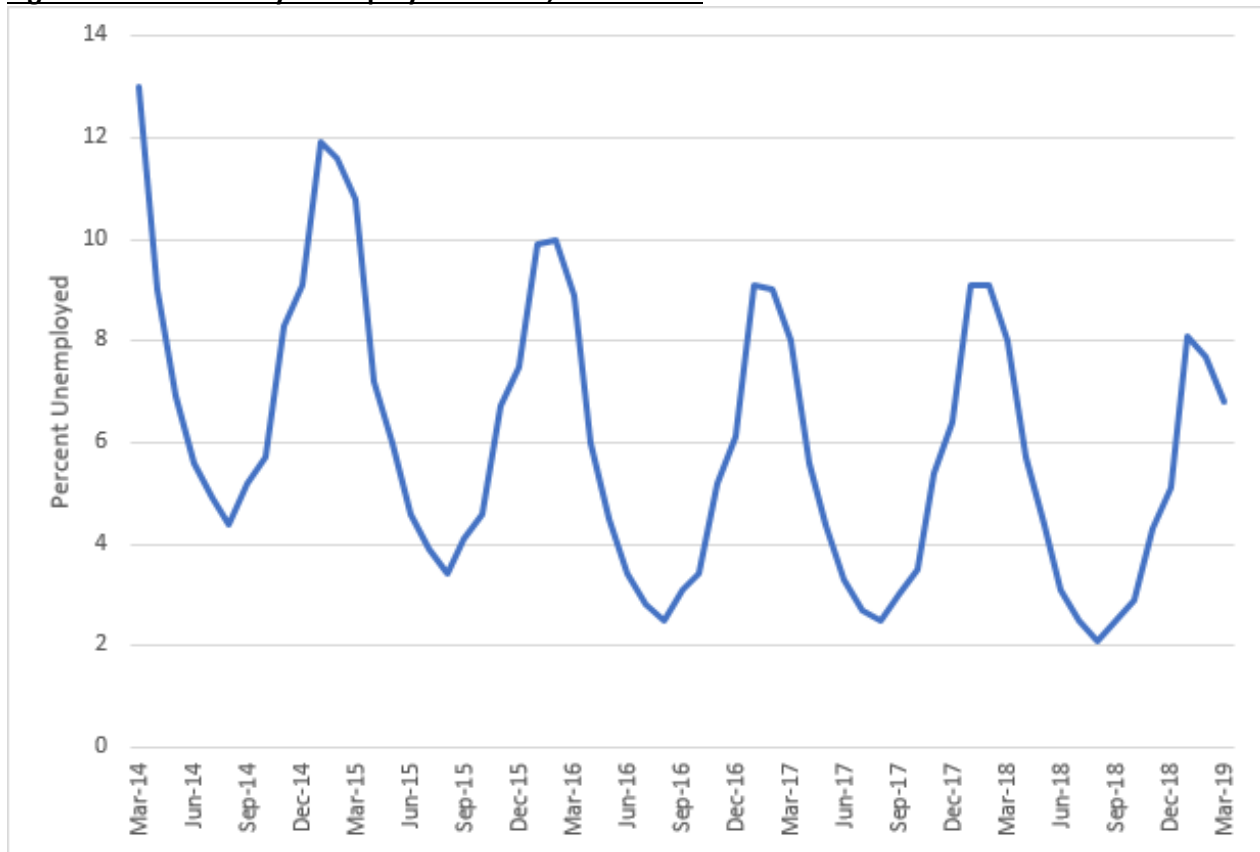
Figure 2: Total Household Income Per Year Distribution, 2013-2017



Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Census Bureau on 5/19/19

The proportion of residents living under the FPL has been decreasing over the past four years, which corresponds with the decrease in unemployment. However, the current unemployment rate in Dukes County (4.9%) is higher than the state (3.7%). The rate of unemployment is seasonal, with the lowest unemployment occurring in summer months. Figure 3 shows how the rates of unemployment are more than double in the off-season.

Figure 3: Dukes County Unemployment Rate, 2014 - 2019



Data Source: US Bureau of Labor Statistics; Retrieved from Federal Reserve Economic Data on 5/19/19

6. Educational Attainment

As shown in Table 6, Dukes County has relatively higher level of educational attainment than the state. The high school graduation rate is 96.6%, 6.3% higher than statewide. Dukes County also has a smaller percentage of residents 25 or older with no high school diploma than the state.

| Table 6: Educational Attainment, 2013-2017 | | |
|--|--------------|---------------|
| | Dukes County | Massachusetts |
| High School Graduation or Higher | 96.6% | 90.3% |
| Population age 25 or older with No High School Diploma | 2.5% | 5.1% |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Census Bureau on 5/19/19

7. Housing

According to the 2013-2017 ACS 5-Year Estimates, Dukes County has 17,677 total housing units, of which 6,139 units are occupied and 11,538 units are vacant. As shown in Table 7, 34.7% of households in Dukes County are occupied while 65.3% are vacant (Note: vacant housing on the island is like used only for summer months by renters/visitors). Dukes County has a substantially higher percentage of vacant housing units (65.3%) than Massachusetts (9.7%). Of the 6,139 occupied housing units in Dukes County, 77.7% of these units are owner-occupied, while 22.3 percent are renter-occupied. Dukes County has a

higher percentage of owner-occupied units and lower percentage of renter-occupied units compared to Massachusetts (62.4% and 37.6%, respectively).

Based on definitions provided by the US Department of Housing and Urban Development (HUD), Dukes County faces significant housing-related challenges. The percentage of households with housing problems is substantially higher in Dukes County (26%) than Massachusetts (18%). As seen in Table 7, 49.4% of households in Dukes (versus 36.4% statewide) experience at least one of the four HUD-defined housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.

| | Dukes County | Massachusetts |
|---|---------------------|----------------------|
| Occupied Housing Units | 34.7 | 90.3 |
| Vacant Housing Units | 65.3 | 9.7 |
| Owner-Occupied Units | 77.7 | 62.4 |
| Renter-Occupied Units | 22.3 | 37.6 |
| Household has at least 1 of 4 housing problems | 49.4 | 36.4 |
| Households has none of 4 housing problems | 48.7 | 62.4 |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Department of Housing and Urban Development on 6/18/19

As seen in Table 8, both the median-owner occupied unit value and the median monthly rent of housing units in Dukes County are substantially higher than for Massachusetts. The median owner-occupied unit value for Dukes County is \$674,600 compared to \$352,600 statewide. The median monthly rent for household units in Dukes County is \$1,441, which is higher than and for Massachusetts at \$1,173.

Moreover, more Dukes County households are “cost-burdened,” which HUD defines as those that “pay more than 30 percent of their income for housing” and thus “may have difficulty affording necessities such as food, clothing, transportation, and medical care.” Severe rent burden is defined as paying more than 50 percent of one’s household income on rent. As seen in Table 8, 23.7% of Dukes County households qualify as cost-burdened and 24.5% qualify as severely cost-burdened, which is much higher than proportion that are cost-burdened and severely cost-burdened in Massachusetts (18.8% and 16.1%, respectively).

| | Dukes County | Massachusetts |
|---|---------------------|----------------------|
| Median Owner-Occupied Unit Value (dollars) | 674,600 | 352,600 |
| Median Monthly Rent (dollars) | 1,441 | 1,173 |
| Housing Cost Burden < 30% | 49.4 | 63.8 |
| Housing Cost Burn between 30% to 50% | 23.7 | 18.8 |
| Housing Cost Burden > 50% | 24.5 | 16.1 |

Data Source: 2013-2017 ACS 5-Year Estimates; Retrieved from US Department of Housing and Urban Development on 6/18/19

8. Food Insecurity

The US Department of Agriculture defines food insecurity as “the lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally

adequate foods.” As shown in Table 9, Dukes County and Massachusetts both have an overall food insecurity rate of 9.0%. The food insecurity rate for children, however, is worse in Dukes County (12.9%) than statewide (11.7%). Furthermore, the average meal cost in Dukes County (\$3.74) is higher than for Massachusetts (\$3.55). The US Department of Agriculture estimates that Dukes County requires an additional \$988,000 annually to meet food insecurity needs on the island.

| | Dukes County | Massachusetts |
|--------------------------------------|---------------------|----------------------|
| Food Insecurity Rate, Overall | 9.0% | 9.0% |
| Food Insecurity Rate, Child | 12.9% | 11.7% |
| Average Meal Cost | \$3.74 | \$3.55 |

Data Source: 2001-2017 Current Population Survey on individuals in food insecure households; Retrieved from US Department of Agriculture on 5/25/19

As seen in Table 10, the Massachusetts Budget and Policy Center provides information on free and reduced-price lunch enrollment rates by school district in Massachusetts. Although statewide participation in the school-based free and reduced lunch program in the 2006-2007 and 2014-2015 schools’ years was higher statewide than in Edgartown, Oak Bluffs, and Tisbury, the increase in program participation across this time period for these three Dukes County communities exceeded the increase statewide. Specifically, the demand for this program in Massachusetts increased by 13.5%, while the demand in Edgartown, Oak Bluffs, and Tisbury increased by 21.2%, 22.5%, and 13.8% respectively. These data show increased demand for free and reduced-price school meal program in Dukes County.

| | 2006-2007 | 2014-2015 | Difference |
|----------------------|------------------|------------------|-------------------|
| Massachusetts | 30.0 | 43.6 | 13.5 |
| Edgartown | 15.4 | 36.5 | 21.2 |
| Oak Bluffs | 14.7 | 37.2 | 22.5 |
| Tisbury | 19.6 | 33.4 | 13.8 |

Data Source: Massachusetts Budget and Policy Center; Retrieved from Kids County Data Center on 6/18/19

9. Access to Care

According to HRSA, Dukes County qualifies as a geographic Health Professional Shortage Area (HPSA), with a geographic high need in Mental Health, Dental Care, and Primary Care. Although the U.S. Department of Health and Human Services Index of Medical Underservice does not classify Dukes County as a Medically Underserved Area or Population (MUA/P), it has been classified as such by the Massachusetts Governor under the Governor’s Exception, a special designation for non-urban areas facing a shortage of primary care services.

According to Table 11, in 2016, access to primary care providers and dental providers in Dukes County was lower than in the rest of the state. The ratio for population to primary care physician was substantially higher than for the rest of the state.⁷ Although still higher than the state ratio, the ratio of

⁷ The reader should consider the heavy presence of medical providers in Massachusetts when comparing data about primary care on the island to primary care statewide.

other types of primary care providers (i.e., non-physicians) is much lower than the ratio for population to primary care physicians.⁸

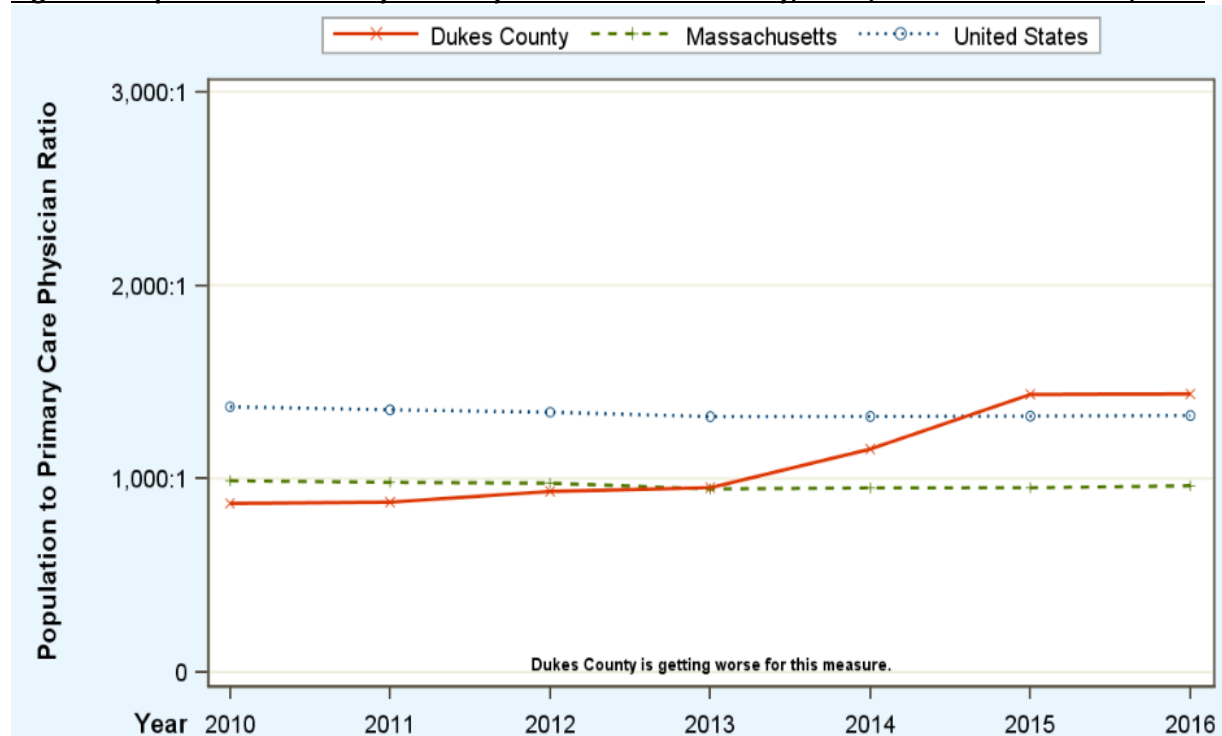
The population to dentist ratio is also higher in Dukes County than for Massachusetts (See Table 11). The Dukes County population to mental health provider ratio is slightly better than Massachusetts overall. Dukes County has a higher proportion of individuals under 65 years old that are uninsured. Dukes County has a 4% uninsured rate, while Massachusetts overall is 3%. Edgartown has the highest percent of uninsured residents.

| Table 11: Clinical Care Access, 2016 | | |
|--|--------------|---------------|
| | Dukes County | Massachusetts |
| Population to Primary Care Physician Ratio | 1440:1 | 960:1 |
| Population to Dentist Ratio | 1580:1 | 990:1 |
| Population to Other Primary Care Providers | 963:1 | 840:1 |
| Population to Mental Health Provider Ratio | 170:1 | 180:1 |
| Uninsured population | 4% | 3% |

Data source: 2013-2017 ACS 5-Year Estimates; Retrieved from County Health Rankings and Roadmaps on 5/19/19

Figure 4 shows growth in the population to primary care provider ratio from 2010 to 2016.

Figure 4: Population to Primary Care Physicians Ratio for County, State, and National Trends, 2016



Data Source: ACS 5-Year Estimates; Retrieved from County Health Rankings and Roadmaps on 5/19/19

⁸ See section IIC for information on changes to primary care on the island since the timeframe of these data.

10. Health Behaviors

Self-reported heavy drinking and binge drinking are higher for both females and males in Dukes County than statewide (see Table 12). However, the percentage of Dukes County residents who report smoking is very similar to the rates in Massachusetts.

| | Dukes County | Massachusetts |
|-----------------------|--------------|---------------|
| Heavy Drinking | | |
| Female | 12.7 | 8.7 |
| Male | 16.0 | 10.9 |
| Binge Drinking | | |
| Female | 16.7 | 15.7 |
| Male | 31.1 | 26.9 |
| Smoking | | |
| Female | 17.1 | 17.4 |
| Male | 20.5 | 20.0 |

Data Source: Institute for Health Metrics and Evaluation; Retrieved from the University of Washington on 5/19/19

In even-numbered years, the Island Youth Task Force conducts a survey based on a national survey administered by the Centers for Disease Control and Prevention (CDC) to measure the use of alcohol and marijuana in Dukes County. In 2016, 800 Dukes County public school students in grades 7 through 12 were surveyed. Shown in Table 13, the percent of Dukes County youth who have smoked marijuana in the past 30 days is substantially higher in Dukes County (33.9%) than the Massachusetts (24.5%) and national (21.7%) rates. However, the percent of youth who have consumed at least one alcoholic drink in that past 30 days is lower in Dukes County (32.6%) than both Massachusetts (33.9%) and the national average (32.8%) and is a substantial improvement from the 41.9% found for Duke's County in a comparable survey in 2012.

| | Dukes County | Massachusetts | Nationally |
|---|--------------|---------------|------------|
| Percentage Smoked Marijuana (past 30 days) | 33.9 | 24.5 | 21.7 |
| Percentage at least one alcoholic drink (past 30 days) | 32.6 | 33.9 | 32.8 |

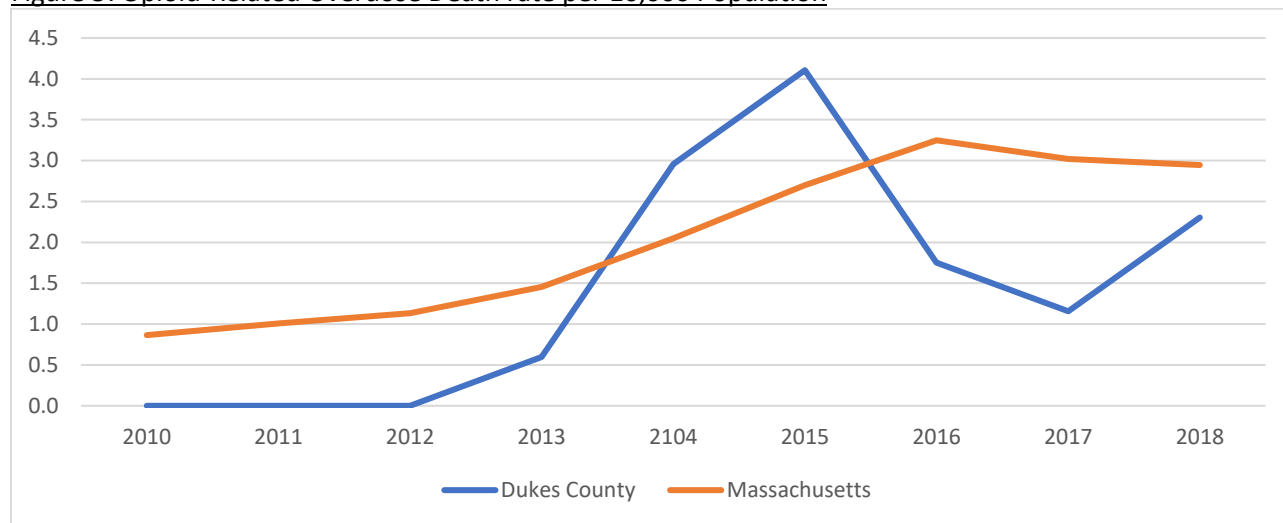
Data Source: The Vineyard Poll Youth Task Force; Retrieved the Vineyard Gazette on 6/18/19 at <https://vineyardgazette.com/news/2017/02/23/youth-task-force-survey-shows-decrease-alcohol-use-marijuana-use-rise>

According to the Massachusetts Department of Public Health, there have been 22 fatal overdoses due to opioids in Dukes County between 2010 and 2018.⁹ Figure 5 shows the opioid-related overdose death rate per 10,000 population for Dukes County and for Massachusetts between 2010 and 2018, calculated using the number of opioid-related overdose deaths in each region, reported by the Massachusetts

⁹ Available at: <https://www.mass.gov/files/documents/2019/05/15/Opioid-related-Overdose-Deaths-by-County-May-2019.pdf>

Department of Public Health in 2019, and population estimates for each year reported by the US Census Bureau. The figure shows that opioid related overdose death rate peaked between 2014 and 2015, exceeding Massachusetts for those years, but as of 2018, the rate of opioid-related overdose deaths was lower in Dukes County than for Massachusetts. The number of deaths is small, especially on the island, so these rates display considerable statistical variation.

Figure 5: Opioid-Related Overdose Death rate per 10,000 Population



Data Sources: Massachusetts Department of Public Health and US Census Bureau; Retrieved 7/8/19

According to the US County Health Rankings and Roadmaps, Dukes County residents are less likely to live a sedentary lifestyle and more likely to walk or bike to work. As seen in Table 14, a higher proportion of both males and females in Duke’s County achieve the recommended physical activity than the Massachusetts proportion. Dukes County residents also have a lower prevalence of obesity than Massachusetts overall.

| | Dukes County | Massachusetts |
|--------------------------------------|--------------|---------------|
| Sedentary Lifestyle | 18 | 20 |
| Recommended Physical Activity | | |
| Female | 66 | 55 |
| Male | 60 | 59 |
| Obesity | | |
| Female | 25.3 | 31.1 |
| Male | 29.1 | 31 |

Data Source: ACS 5-Year Estimates, Institute for Health Metrics and Evaluation

Retrieved from County Health Rankings and Roadmap, University of Washington on 5/19/19

11. Health Outcomes

Table 15 describes Lyme disease in Massachusetts by county. The last column shows that the incidence of confirmed and probable Lyme disease cases per 100,000 residents is higher in Dukes County than in any other county in the state with the exception of Nantucket.

Table 15: Lyme Disease (2014) by Massachusetts County

| County | 2014 Confirmed Cases (#) of Lyme Disease | 2014 Probable Cases (#) of Lyme Disease | Combined Incidence Rate for 2014 Confirmed and Probable Cases of Lyme per 100,000 residents |
|--------------------|--|---|---|
| Barnstable | 180 | 84 | 122 |
| Berkshire | 60 | 26 | 66 |
| Bristol | 479 | 194 | 123 |
| Dukes | 33 | 18 | 308 |
| Essex | 319 | 163 | 65 |
| Franklin | 50 | 28 | 109 |
| Hampden | 126 | 54 | 39 |
| Hampshire | 102 | 34 | 86 |
| Middlesex | 748 | 320 | 71 |
| Nantucket | 48 | 10 | 570 |
| Norfolk | 471 | 205 | 101 |
| Plymouth | 554 | 280 | 169 |
| Suffolk | 79 | 67 | 20 |
| Worcester | 421 | 226 | 81 |
| State Total | 3830* | 1770** | 86 |

Data source: *Lyme Disease Surveillance in Massachusetts, 2014*, Massachusetts Department of Public Health. Accessed 7/16/19 at <https://www.mass.gov/files/documents/2018/01/02/Lyme%20disease%202014.pdf>

Table 16 shows the rate of sexually transmitted disease per 100,000. The HIV incidence rate in Dukes County (285.1 per 100,000) is lower than that of Massachusetts (339.1 per 100,000). The Dukes County Chlamydia rate and Early Latent Syphilis rate are lower than statewide. The Dukes County Gonorrhea rate (17.3 per 100,000) is lower than that of Massachusetts (65.4 per 100,000). Finally, the Primary and Secondary Syphilis rate in Dukes County (11.6 per 100,000) is higher than Massachusetts overall (7.2 per 100,000), however, because of the small population, even one case can have a large effect on the rate per 100,000.

Table 16: Sexually Transmitted Disease (rate per 100,000), 2016

| | Dukes County | Massachusetts |
|--------------------------------|--------------|---------------|
| HIV Incidence | 285.1 | 339.1 |
| Chlamydia | 92.5 | 414.2 |
| Gonorrhea | 17.3 | 65.4 |
| Primary and Secondary Syphilis | 11.6 | 7.2 |
| Early Latent Syphilis | 0 | 6.1 |

Data Source: Center for Disease Control and Prevention National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; Retrieved from the CDC Atlas Plus on 6/17/19

As seen in Table 17, Dukes County ranks worse than the state in female life expectancy; mortality rates related cerebrovascular disease (for both females and males), breast cancer, and malignant skin melanoma (females and males); self-harm mortality (females and males); and transport injury mortality

(females and males). Note: Data on outcomes that appear in bold/italics/underline are worse for Dukes County than statewide.

| Table 17: Mortality rates (per 100,000 population, age-standardized), 2014 | | |
|---|---------------------|----------------------|
| | Dukes County | Massachusetts |
| Life Expectancy (years) | | |
| Female | <u>80.4</u> | 82.5 |
| Male | 80.1 | 78.1 |
| All-Cause Mortality Rate | | |
| Female | 551.4 | 606.8 |
| Male | 729.2 | 855.4 |
| Ischemic Heart Disease Mortality Rate | | |
| Female | 97.6 | 103.9 |
| Male | 130.7 | 162.2 |
| Cerebrovascular Disease Mortality Rate | | |
| Female | <u>43.0</u> | 40.0 |
| Male | <u>45.7</u> | 41.3 |
| Tracheal, Bronchus, Lung Cancer Mortality Rate | | |
| Female | 46.2 | 46.6 |
| Male | 52.8 | 64.1 |
| Breast Cancer Mortality Rate | | |
| Female | <u>24.6</u> | 23.4 |
| Malignant Skin Mortality Melanoma | | |
| Female | <u>2.5</u> | 2.2 |
| Male | <u>5.0</u> | 4.5 |
| Self-Harm Mortality Rate | | |
| Female | <u>7.3</u> | 6.6 |
| Male | <u>22.1</u> | 21.0 |
| Transport Injuries Mortality Rate | | |
| Female | <u>5.2</u> | 4.1 |
| Male | <u>11.4</u> | 10.4 |
| Substance Use Disorders Mortality Rate | | |
| Female | 7.7 | 9.3 |
| Male | 17.8 | 26.7 |
| Chronic Liver Disease Mortality Rate | | |
| Female | 6.5 | 10.0 |
| Male | 16.6 | 20.2 |

Data Source: Institute for Health Metrics and Evaluation; Retrieved from the University of Washington on 5/19/19

Table 18 shows the prevalence of chronic conditions for seniors (ages 65+) in Massachusetts and Edgartown, Oak Bluffs, Tisbury, as well as the towns of Chilmark, Aquinnah, and West Tisbury combined. Prevalence rates that are equal to or higher than the statewide rates are shaded in gray in Table 18. Particularly noteworthy are the rates of Rheumatoid Arthritis and Leukemias and Lymphomas, which are equal to or higher than the statewide rate in all of the island towns.

Table 18. Chronic conditions (percent prevalence ages 65+) 2018

| | MA | Edgartown | Oak Bluffs | Tisbury | Chilmark, Aquinnah, & West Tisbury |
|---------------------------------------|------|-----------|------------|---------|--|
| Alzheimer's Disease | 13.6 | 10 | 11.4 | 12 | 10.5 |
| Diabetes | 31.7 | 21.5 | 28.7 | 23.8 | 15.6 |
| Stroke | 12.0 | 9.2 | 12.3 | 11.9 | 9.2 |
| Chronic obstructive pulmonary disease | 21.5 | 17.7 | 21.3 | 20.4 | 14.9 |
| Asthma | 15.0 | 13.8 | 14.0 | 14.3 | 11.7 |
| Hypertension | 76.2 | 65.3 | 72.0 | 66.0 | 52.8 |
| Heart Attack | 4.6 | 3.3 | 4.0 | 4.8 | 3.2 |
| Ischemic heart disease | 40.2 | 33.4 | 39.4 | 33.8 | 30.1 |
| Congestive heart failure | 22.4 | 17.7 | 21.1 | 21.5 | 13.1 |
| Atrial fibrillation | 15.9 | 14.8 | 15.1 | 15.1 | 12.7 |
| Peripheral vascular disease | 19.4 | 13.6 | 18.2 | 17.3 | 13.1 |
| Rheumatoid Arthritis | 52.4 | 56.0 | 63.0 | 57.0 | 52.5 |
| Osteoporosis | 20.7 | 18.2 | 20.0 | 19.8 | 16.8 |
| Leukemias and lymphomas | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 |
| Lung cancer | 2.1 | 1.9 | 1.9 | 1.0 | 1.0 |
| Colon cancer | 2.9 | 2.1 | 2.1 | 2.7 | 2.7 |
| Breast cancer in women | 10.9 | 9.6 | 8.2 | 11.8 | 12.1 |
| Endometrial cancer | 1.9 | 1.9 | 1.9 | 1.7 | 1.7 |
| Prostate cancer | 13.8 | 11.8 | 14.4 | 12.9 | 16.9 |
| Benign prostatic hyperplasia | 40.9 | 37.1 | 38.5 | 31.1 | 38.6 |
| HIV/AIDS | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Hypothyroidism | 21.2 | 21.6 | 20.8 | 20.7 | 16.9 |
| Anemia | 46.6 | 39.1 | 45.4 | 44.2 | 37.9 |
| Chronic kidney disease | 27.3 | 16.2 | 21 | 17.9 | 16.2 |
| Liver disease | 8.6 | 6.4 | 8.4 | 6.8 | 4.5 |
| Fibromyalgia & chronic pain/fatigue | 19.8 | 17.5 | 21.2 | 18.00 | 19.8 |
| 4+ (out of 15) chronic conditions | 60.7 | 51.8 | 57.9 | 53.3 | 44.8 |
| 0 chronic conditions | 7.3 | 9.0 | 7.3 | 10.1 | 12.1 |

Data Source: Behavioral Risk Factor Surveillance System; Retrieved from 2018 Massachusetts Health Aging Community Profile on 6/17/19; Available at: <https://mahealthyagingcollaborative.org/wp-content/themes/mhac/pdf/counties/Dukes.pdf>

B. The Quality of Life Survey

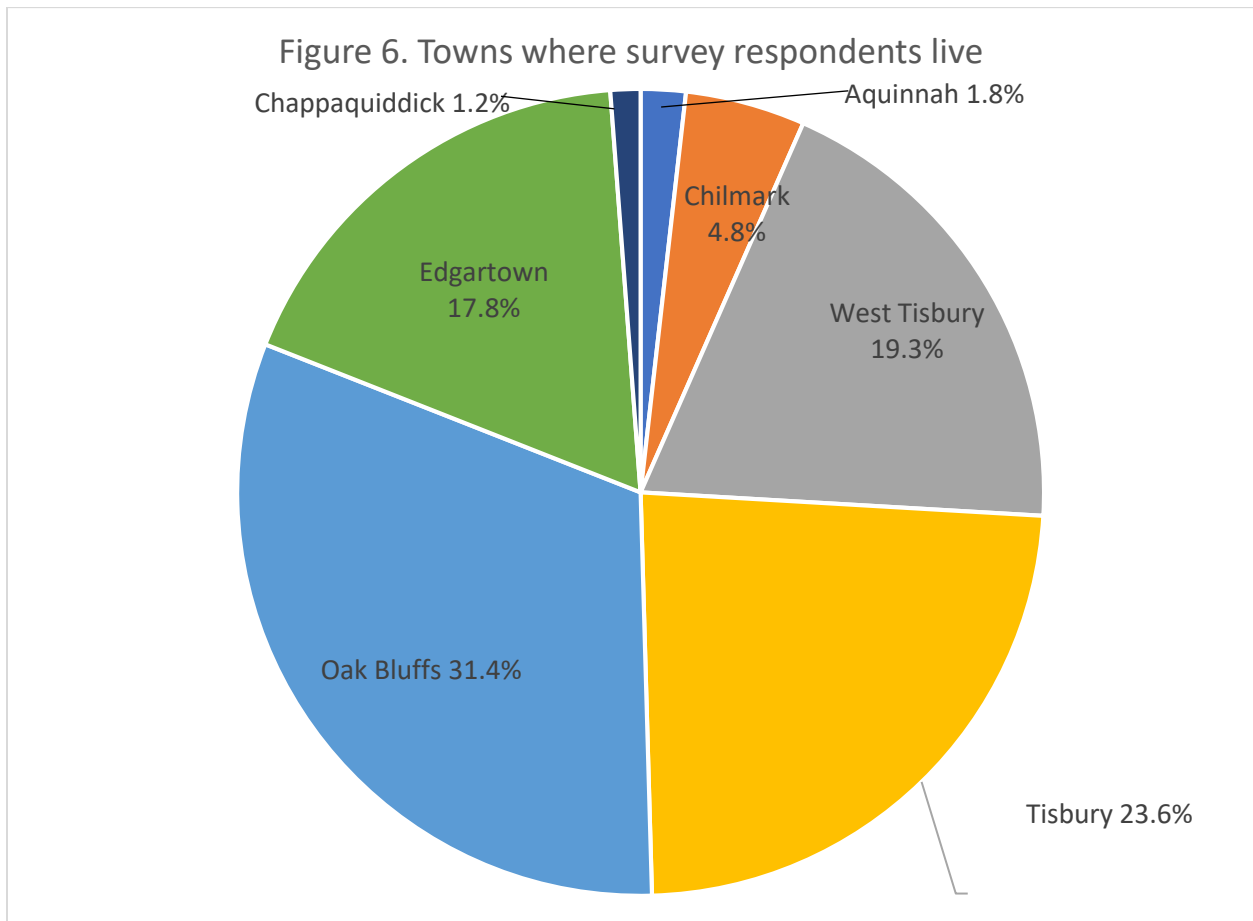
1. Description of survey participants

Of the survey respondents, 93% live on the island; 65.7% of those live and work on the island (See Table 19).

Table 19. Whether survey respondents live and/or work on the Vineyard (n=344)

| | | |
|---|-----|-------|
| Yes, I LIVE on Martha's Vineyard | 94 | 27.3% |
| Yes, I WORK on Martha's Vineyard | 18 | 5.2% |
| Yes, I LIVE and WORK on Martha's Vineyard | 226 | 65.7% |
| No, I don't live or work on Martha's Vineyard | 6 | 1.7% |

As Figure 6 below shows, no residents of Gosnold/Elizabeth Islands responded to the survey. However, residents from all of the other towns on the Vineyard participated in the survey with the largest proportion residing in Oak Bluffs (31.4%).



The vast majority (91.3%) of survey participants are year-round residents of the island (See Table 20).

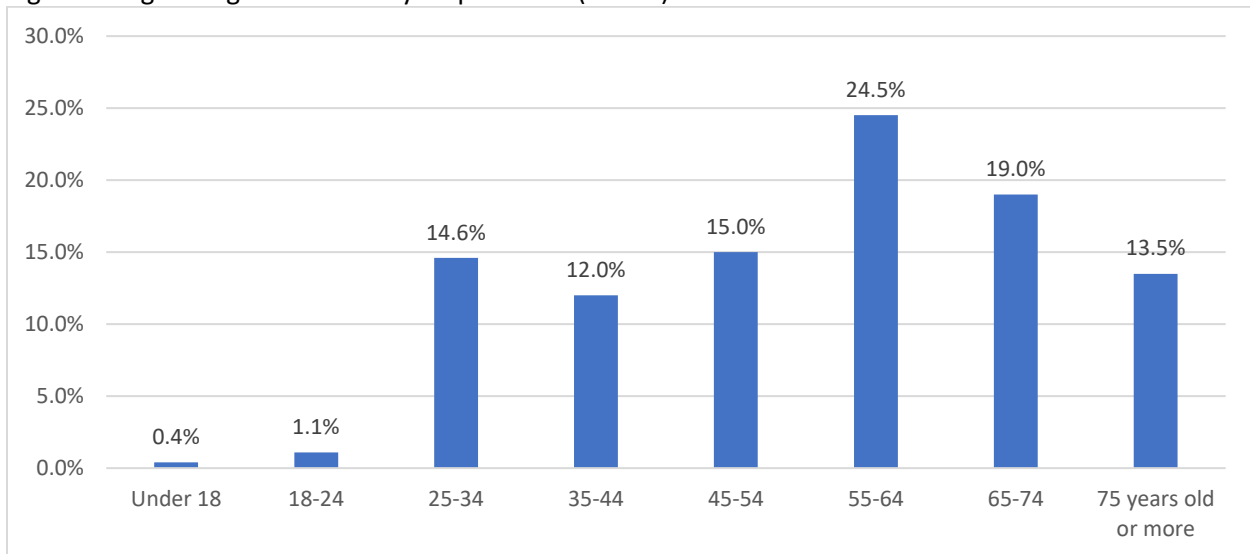
Table 20. Participants' residency on the Vineyard (n=334)

| | | |
|----------------------------|-----|-------|
| I am a year-round resident | 305 | 91.3% |
| I am a part-time resident | 14 | 4.2% |
| I am a summer resident | 12 | 3.6% |
| I am a seasonal worker | 3 | 0.9% |

Although, according to the 2013-2017 ACS projections shared in the previous section, women comprise roughly 52% of the island's population, they constitute 82.3% of those who completed the survey. In response to a question about gender identity, no respondents identified as transgender male or female nor did anyone identify as gender queer (i.e., neither exclusively male nor female).

Just over half (51.5%) of survey participants are between the ages of 35 and 64. Seniors (65 years and older) comprised 32.5% of survey respondents (See Figure 7 below). An additional 15.7% of participants were young adults (i.e., those between the ages of 18 and 34). Seniors and adults between the ages of 35 and 64 are over-represented among the survey participants compared to the age of Duke's County residents provided in the Secondary Data summary in the previous section.

Figure 7. Age categories of survey respondents (n=274)



As shown in Table 21, the majority of respondents (84.9%) selected White to describe their race, which is slightly lower than the 88.1% projected in the 2013-2017 ACS 5-Year Estimates of the population of Dukes County. The proportion of American Indian/Alaska Natives responding to the survey was twice that of the ACS projections (3.2% vs. 1.6%) and the proportion of Black or African American survey respondents is roughly the same as reflected in the ACS projections (3.8% vs. 3.9%).

Figure 21. Race of survey participants (n=345)

| | | |
|---|-----|-------|
| American Indian or Alaska Native | 11 | 3.2% |
| Asian | 5 | 1.4% |
| Black or African American | 13 | 3.8% |
| Native Hawaiian or Other Pacific Islander | 0 | 0.0% |
| White | 293 | 84.9% |
| Prefer not to answer | 21 | 6.1% |
| Other | 9 | 2.6% |

Note: 6 people selected more than one category

With regard to ethnic heritage, 2.7% of the survey participants described themselves as Hispanic or Latino and 6.5% as Brazilian.

Most (90.9%) of survey participants indicated that they were born in the U.S. Of those who reported that they were born outside the U.S., 75% have lived in the U.S. for six years or more, but not their whole life (See Table 22).

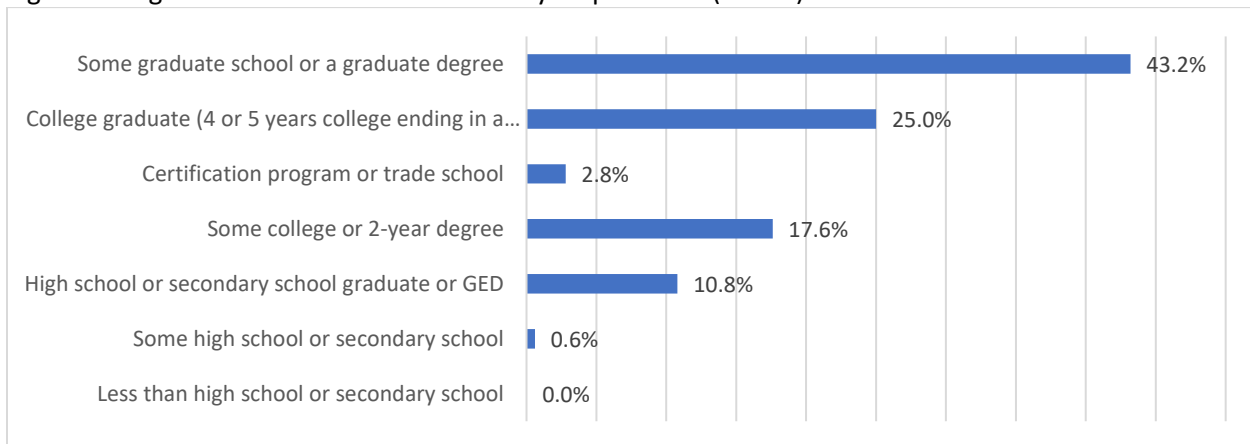
Table 22. Length of time in U.S. for those not born in U.S. (n=20)

| | | |
|--|----|-------|
| Less than 1 year | 1 | 5.0% |
| 1 to less than 3 years | 2 | 10.0% |
| 3 to less than 6 years | 1 | 5.0% |
| 6 years or more, but not my whole life | 15 | 75.0% |
| I have always lived in the U.S. | 1 | 5.0% |

Of those (n=180) who provided data on primary language, 94.4% indicated that English is the primary language spoken at home, whereas 6.7% speak Portuguese as the primary language at home.

Of those who provided information on their highest level of educational attainment (n=176 or 50.8%), most (68.2%) have a college degree or more, whereas 11.4% have a high school degree, GED or less (See Figure 8) The proportion of survey respondents with a high school degree or more (99.4%) is fairly comparable to the proportion of island residents in general who have a high school degree or more (96.6%).

Figure 8. Highest level of education of survey respondents (n=176)



Most of the survey respondents (88.8%) indicated that they have not served in the military. However, 6.1% of respondents reported that they are veterans.

While 8.4% of survey participants reported that they have a disability that affects one or more of the following: hearing, vision, cognition, ambulation/movement, self-care, and/or independent living, the majority of survey participants reported that they do not have a disability.

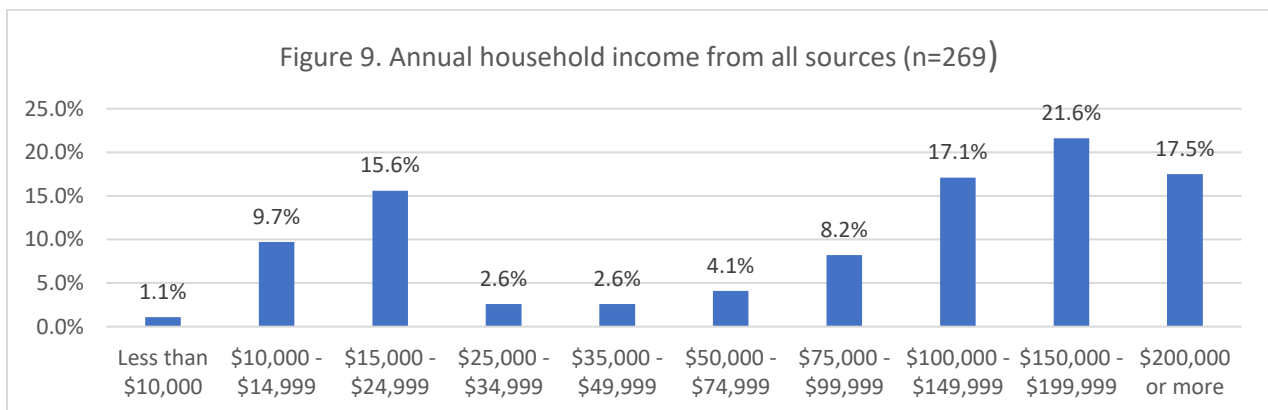
2. Socio-economic status of survey participants

As shown in Table 23, over half (52.2%) of survey respondents are employed for wages with two-thirds working 40 hours or more. Just over 20% work more than one job (22.4%) and just under 20% are self-employed (19.9%) or retired (19.4%).

Table 23. Employment/work status (n=299)

| | | |
|---------------------------------------|-----|-------|
| working for wages | 156 | 52.2% |
| employed full time (40 hours or more) | 104 | 66.7% |
| employed part time (under 40 hours) | 33 | 21.2% |
| full or part-time unspecified | 19 | 12.2% |
| more than one job | 35 | 22.4% |
| self-employed | 31 | 19.9% |
| seasonal worker | 7 | 4.5% |
| a homemaker | 8 | 2.7% |
| a student | 10 | 3.3% |
| Retired | 58 | 19.4% |
| unable to work | 2 | 0.7% |
| out of work more than a year | 2 | 0.7% |
| out of work for less than a year | 1 | 0.3% |

As shown in Figure 9, over half of survey participants (56.2%) reported household income of \$100,000 or more, whereas 26.4% have household incomes of under \$25,000. When comparing the survey data to the 2013-2017 ACS 5-Year Estimates (see section IIA), the incomes of survey participants skew higher and lower than for the island in general.



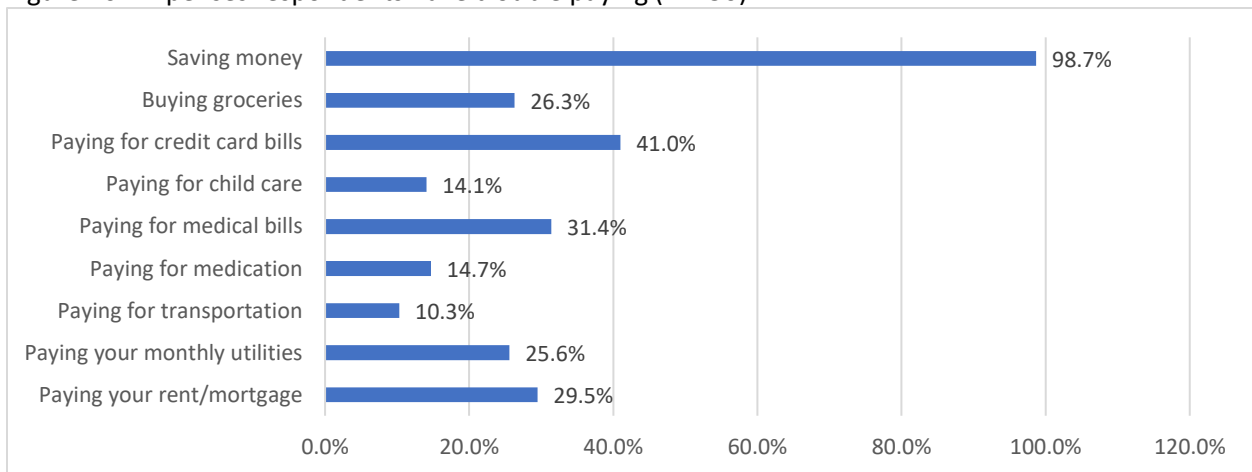
Thirty-nine or 11.3% of survey respondents reported having received some form of assistance over the last year. As shown in Table 24, the most commonly reported forms of assistance received were with food (35.9%), childcare (20.5%), medications (17.9%), education (17.9%), and care for an elder or disabled person (15.4%).

Table 24. Services received over the last 12 months (n=39)

| | | | | | |
|--------------------|----|-------|----------------------------|---|-------|
| Transportation | 1 | 2.6% | Childcare | 8 | 20.5% |
| Utility bills | 4 | 10.3% | Housing | 5 | 12.8% |
| Education | 7 | 17.9% | Job search or training | 2 | 5.1% |
| Food | 14 | 35.9% | Care for elder or disabled | 6 | 15.4% |
| Medications | 7 | 17.9% | Translation/interpretation | 0 | 0.0% |
| Immigration issues | 0 | 0.0% | Legal issues | 2 | 5.1% |

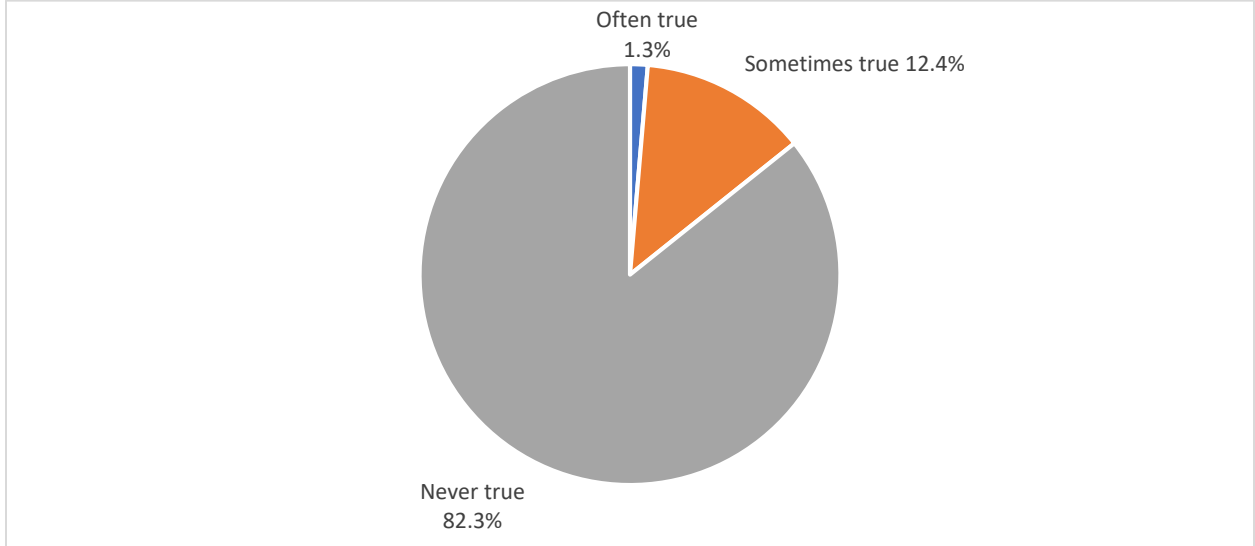
In total, 156 (45%) survey respondents reported having trouble with one or more expenses. Nearly all (98.7%) reported having trouble saving money (See Figure 10). Many have trouble paying credit card bills (41%), medical bills (31.4%), rent or a mortgage (29.5%), groceries (26.3%), and/or utilities (25.6%).

Figure 10. Expenses respondents have trouble paying (n=156)



Although most (82.3%) of respondents indicated that they never worry about running out of food before they can afford to buy more, 13.7% worry sometimes or often about this issue (See Figure 11).

Figure 11. How often in the last 12 months participants worried food would run out before they had money to buy more (n=287).



3. Island strengths, concerns, and community/civic engagement

When asked about the strengths of the Vineyard, nearly three-quarters of respondents indicated that people on the island care about improving their community and a majority (63.5%) also believes islanders are proud of their community (See Table 25). Just over half (51.3%) feel they belong in the community. In contrast, less than one-third believes that people in the community can deal with challenges (31.7%), that the community is close to medical services (29.2%) and has good access to resources (28.2%), that there are innovative and new ideas in the community (27.9%), or that people speak their language (20.8%).

Table 25. Strengths of the Vineyard (n=312)

| | | |
|--|-----|-------|
| People care about improving their community | 232 | 74.4% |
| People are proud of their community | 198 | 63.5% |
| People feel like they belong in this community | 160 | 51.3% |
| People accept others who are different than themselves | 151 | 48.4% |
| People like to work together in this community | 148 | 47.4% |
| My community has people of many races and cultures | 141 | 45.2% |
| People can deal with challenges in this community | 99 | 31.7% |
| My community is close to medical services | 91 | 29.2% |
| My community has good access to resources | 88 | 28.2% |
| There are innovation and new ideas in my community | 87 | 27.9% |
| People speak my language | 65 | 20.8% |
| None of the above | 8 | 2.6% |

Survey participants were asked to use a Likert scale (strongly disagree to strongly agree) to indicate their level of agreement with nine statements about the community and their engagement in it. As shown in Table 26 below, 70% or more of the respondents expressed agreement (somewhat or strongly agreed)

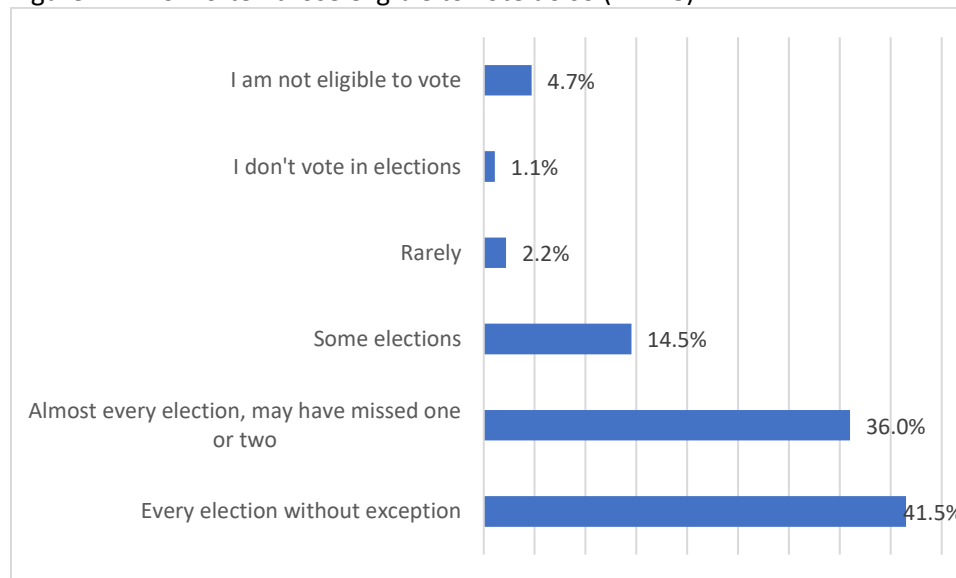
that it is important to them to be involved in town decision-making (83%), they know who their selectmen are (74.8%) and that they know how to contact their elected town representatives to express opinions and concerns (72.5%) and that people in the neighborhood help each other out (75.2%). Most (67.8%) believe that they and their neighbors want the same thing for their neighborhood and most (61.3%) recognize most of the people who live in their town.

Table 26. Agreement (somewhat or strongly agree) with statements about the community and engagement

| | | |
|--|-----|-------|
| It is important to me to be involved in town decision-making. (n=277) | 230 | 83.0% |
| People in my neighborhood help each other out. (n=302) | 227 | 75.2% |
| I know who my town selectmen are. (n=278) | 208 | 74.8% |
| I expect to live in my neighborhood for a long time. (n=302) | 222 | 73.5% |
| I know how to contact my elected town representatives to express my opinions and concerns. (n=280) | 203 | 72.5% |
| My neighbors and I want the same thing for our neighborhood. (n=301) | 204 | 67.8% |
| I can recognize most of the people who live in my town. (n=302) | 185 | 61.3% |
| I feel that I can influence decisions made by town government. (n=276) | 143 | 51.8% |
| I have a lot of influence over what my neighborhood is like. (n=300) | 111 | 37.0% |

Among respondents who are eligible to vote, 77.5% vote in most (36%) or all (41.5%) elections (See Figure 12).

Figure 12. How often those eligible to vote do so (n=278)



As shown in Table 27, survey participants reviewed a list of community concerns and selected the top five most important to them. The top five concerns were housing quality and affordability (76.1%); alcohol/drug abuse/addiction/overdose (72.8%); access to health care or other services (56.1%); mental health (43.9%), and elder/aging health issues (43.6%).

Figure 27. Top 5 most important concerns on the Vineyard (n=305)

| | | |
|--|-----|-------|
| Housing quality and affordability | 232 | 76.1% |
| Alcohol/drug abuse/addiction/overdose | 222 | 72.8% |
| Access to healthcare or other services | 171 | 56.1% |
| Mental health (anxiety, depression, etc.) | 134 | 43.9% |
| Elder/aging health issues (e.g., falls, dementia) | 133 | 43.6% |
| Employment/job opportunities | 93 | 30.5% |
| Homelessness | 60 | 19.7% |
| Cancer | 41 | 13.4% |
| Marijuana use under 18 years old | 33 | 10.8% |
| Environment (e.g., air quality, traffic, noise, climate change) | 31 | 10.2% |
| Hunger/food insecurity/malnutrition | 28 | 9.2% |
| Domestic violence | 22 | 7.2% |
| Poverty | 22 | 7.2% |
| Other (please specify) | 20 | 6.6% |
| Education (low graduation rates, poor quality of education, etc.) | 19 | 6.2% |
| Trauma | 19 | 6.2% |
| Vaping | 17 | 5.6% |
| Obesity | 16 | 5.2% |
| Heart disease and stroke | 12 | 3.9% |
| Diabetes | 11 | 3.6% |
| Poor diet/inactivity | 11 | 3.6% |
| Child abuse and neglect | 9 | 3.0% |
| Infant and child health (e.g., infant death, premature birth, develop. delays) | 8 | 2.6% |
| High blood pressure | 8 | 2.6% |
| Motor vehicle injuries/deaths | 8 | 2.6% |
| Smoking | 6 | 2.0% |
| Community violence/crime | 4 | 1.3% |
| Rape/sexual assault | 4 | 1.3% |
| Autism | 3 | 1.0% |
| Gambling | 2 | 0.7% |
| Infectious diseases (Hepatitis, TB, etc.) | 2 | 0.7% |
| Respiratory/lung disease | 2 | 0.7% |
| Asthma | 1 | 0.3% |
| Sexually transmitted infections (STIs) (e.g., Chlamydia, HPV) | 1 | 0.3% |
| Teenage pregnancy | 1 | 0.3% |
| HIV/AIDS | 0 | 0.0% |
| Miscarriage | 0 | 0.0% |

Other = Tick-borne illness/Lyme Disease (n=7); access to specialists/difficulty accessing appointments/retiring clinicians (n=3); cost of living (n=2); transportation to Boston for medical care (n=2); prenatal & post-partum care (n=1); fertility resources (n=1); services for those with intellectual/learning disabilities (n=1); racism/anti-Brazilian sentiments (n=1); need for venture capital/business opportunities (n=1); job training for post-high school young people (n=1)

4. Housing and community safety, access, and environmental concerns

The majority of respondents (69.7%) live in a house or apartment that they own (See Table 28). The remaining 30.3% rent a house, apartment, or room (26.7%), are staying with friends or family (2.6%), or live in some other situation (1.0%).

Table 28. Current living situation (n=300)

| | | |
|--|-----|-------|
| Living in a house/apartment that I own | 209 | 69.7% |
| Living in a house/apartment that I rent | 71 | 23.7% |
| Living in a room that I rent | 9 | 3.0% |
| Staying with friends | 1 | 0.3% |
| Staying with family | 7 | 2.3% |
| Living in a hotel or motel that the government pays for | 0 | 0.0% |
| Living in my car, on the streets, or another place not meant for people to sleep/ live | 0 | 0.0% |
| Other | 3 | 1.0% |

Based on the 2013-2017 ACS 5-Year Estimates (see IIA), the proportion of owner-occupied housing is higher than reported by survey participants (77.7% vs. 69.7%, respectively).

Twenty-three (8.7%) of the survey respondents reported one or more housing-related vulnerabilities. Seventeen (5.6%) are concerned that they may not have stable housing in the next two months. Because the survey was conducted in late May/early June, people were reporting concern over losing their housing over the summer rental season. Eight (2.6%) live in a place with a short-term lease and must vacate in the summer; and two (.7%) receive some sort of rental assistance. None reported sometimes being a resident of the island's temporary evening shelter.

Table 29 shows data from 108 survey participants who moved within the last five years, most by choice. They wanted: their own place (18.5%), a different size and/or nicer house (13.9%), and to be closer to work, school, and/or family (11.1%). However, several cited reasons beyond their control: had seasonal housing that they had to vacate in the summer (14.8%), challenges paying rent (7.4%), and poor housing conditions (7.4%). Some also had a change in their family (10.2%) or wanted to live in a safer neighborhood (.9%). Other reasons (15.7%) included moving to the Vineyard from elsewhere, the person's house was sold, and the landlord decided to move into the home so the renter had to vacate.

Table 29. Main reason respondents moved in the last five years (n=108)

| | | |
|---|----|-------|
| Got own place to stay/wanted to have own place | 20 | 18.5% |
| Other | 17 | 15.7% |
| Seasonal housing turnover (10-month lease; had to vacate in summer) | 16 | 14.8% |
| You wanted a different size and/or nicer house | 15 | 13.9% |
| You wanted to be closer work/school/family | 12 | 11.1% |
| A change in your family (e.g., new baby, new relationship, end of relationship) | 11 | 10.2% |
| Issues related to paying rent or mortgage | 8 | 7.4% |
| Issues related to poor housing conditions | 8 | 7.4% |
| You wanted a safer neighborhood | 1 | 0.9% |
| (renters) Your landlord went into foreclosure | 0 | 0.0% |
| (homeowners) You went through foreclosure | 0 | 0.0% |
| You were evicted/wanted to avoid an eviction | 0 | 0.0% |
| Housing subsidy funding ran out/budget cuts | 0 | 0.0% |
| Issues related to risk of domestic violence | 0 | 0.0% |

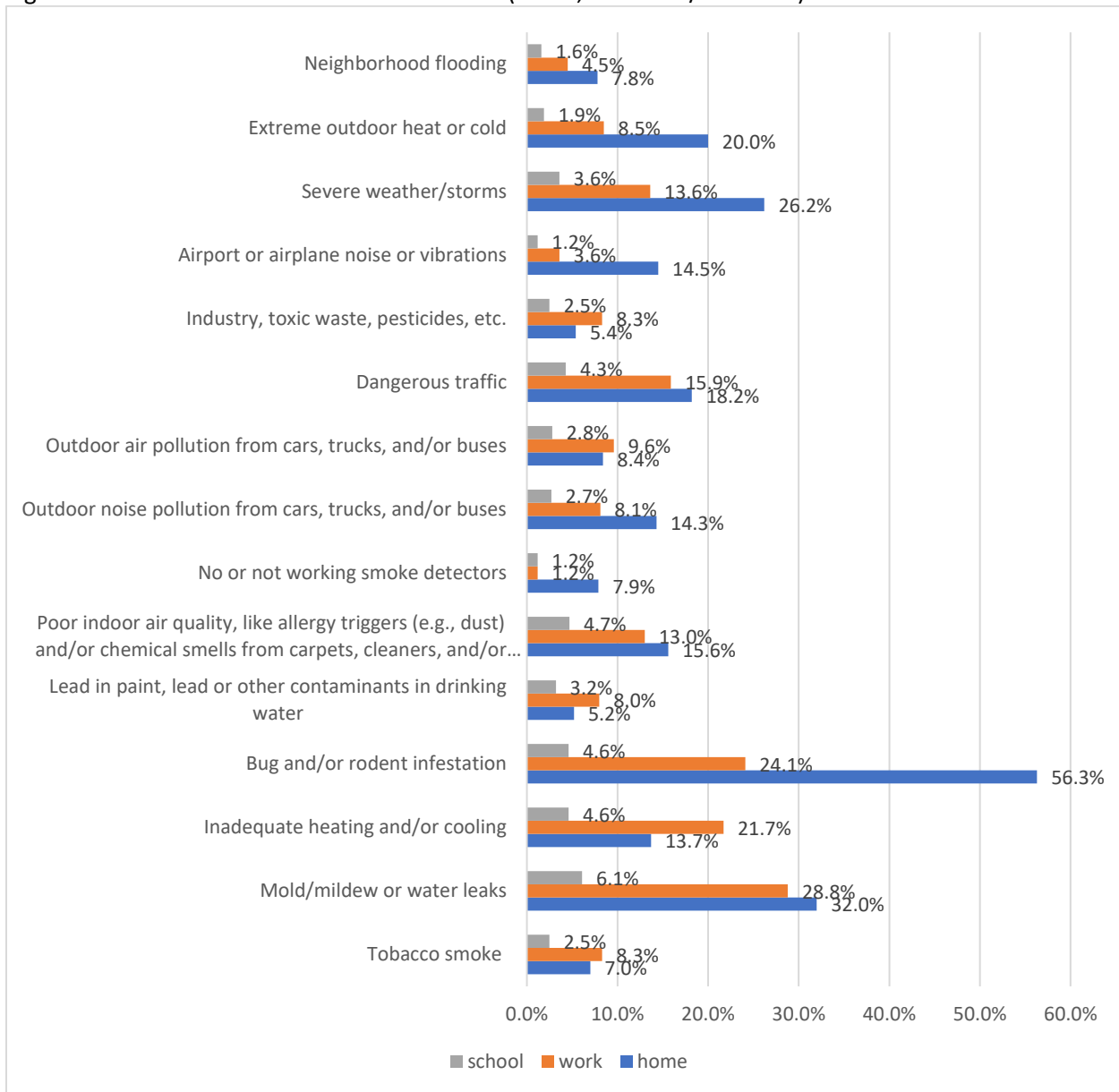
As shown in Table 30, survey participants identified a number of environmental concerns in the community. The most common of these is mold/mildew or water leaks (59.8%) followed by poor indoor air quality (37.9%).

Table 30. Environmental concerns expressed by survey participants

| | | |
|---|-----|-------|
| Mold/mildew or water leaks | 207 | 59.8% |
| Poor indoor air quality, like allergy triggers (e.g., dust) and/or chemical smells from carpets, cleaners, and/or furniture | 131 | 37.9% |
| Severe weather/storms | 121 | 35.0% |
| Inadequate heating and/or cooling | 105 | 30.3% |
| Dangerous traffic | 99 | 28.6% |
| Extreme outdoor heat or cold | 79 | 22.8% |
| Bug and/or rodent infestation | 74 | 21.4% |
| Outdoor noise pollution from cars, trucks, and/or buses | 65 | 18.8% |
| Outdoor air pollution from cars, trucks, and/or buses | 52 | 15.0% |
| Airport or airplane noise or vibrations | 48 | 13.9% |
| Tobacco smoke | 43 | 12.4% |
| Lead in paint, lead or other contaminants in drinking water | 41 | 11.8% |
| Industry, toxic waste, pesticides, etc. | 39 | 11.3% |
| Neighborhood flooding | 34 | 9.8% |
| No or not working smoke detectors | 25 | 7.2% |

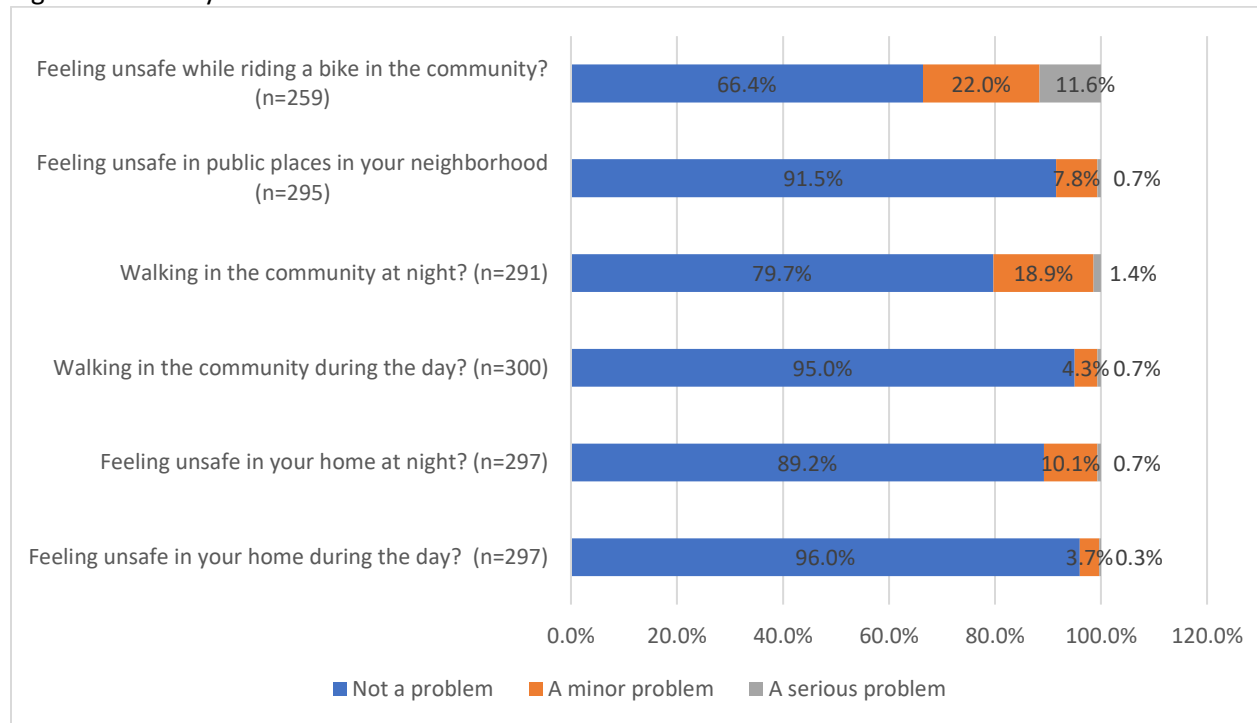
Figure 13 shows where these environmental concerns exist (i.e., at home, work or school). Thirty-two percent were concerned about mold, mildew, and water leaks at home and 28.8% at work. Additionally, 15.6% were concerned about poor indoor air quality at home and 13% at work. Although some environmental concerns were associated with schools, all 15 environmental conditions were greater concerns at home and work.

Figure 13. Location of environmental concerns (home, work and/or school).



The majority of participants feel their neighborhood is either extremely safe (53.2%) or safe (44.8%), whereas 2% indicated that their neighborhood is either unsafe or very unsafe (1% each). However, as shown in Figure 14, roughly a third (33.6%) indicated that feeling unsafe while riding a bike in the community is a minor (22%) or serious (11.6%) problem. Approximately 20% feel walking in the community at night is a minor (18.9%) or serious (1.4%) problem and over 10% indicated feeling unsafe to some degree in their home at night.

Figure 14. Safety concerns



As shown in Table 31, 118 or 34.2% of survey respondents cited one or more issues that prevented them from getting to meetings, work, or from getting things needed for daily living, other than medical appointments, in the last 12 months. Of the reasons cited, limited street parking or traffic was most common (79.7%) followed by limited opportunities for safe bike riding (32.2%).

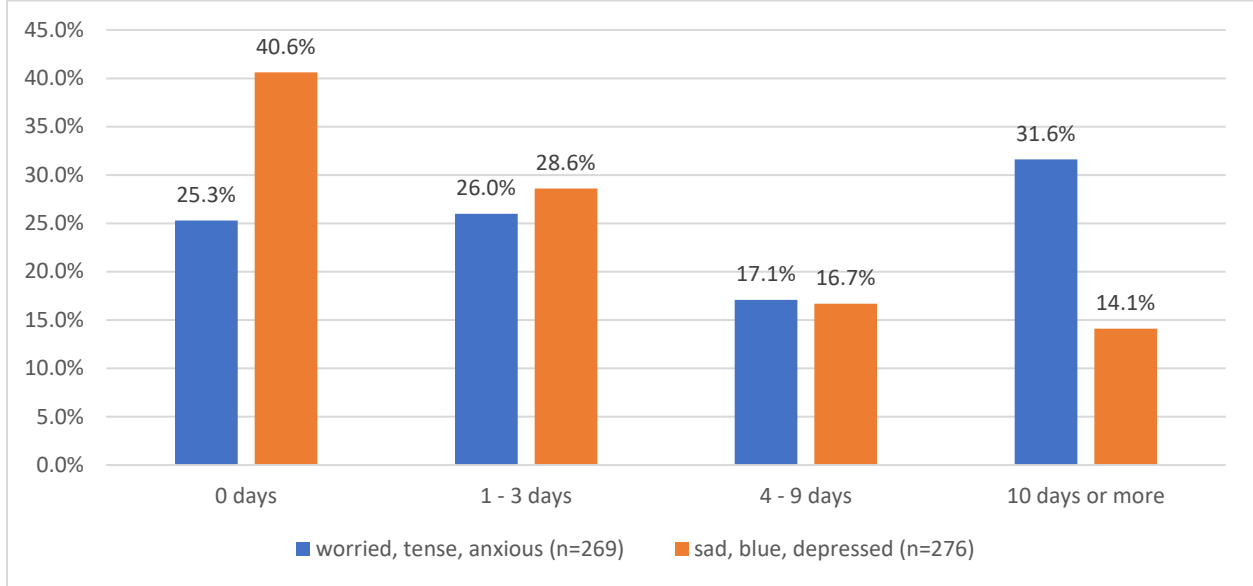
Table 31. In the past 12 months, issues that kept respondents from meetings, work, or from getting things needed for daily living (other than medical appointments)? (n=346)

| | | |
|---|-----|--------|
| No problem identified | 228 | 65.80% |
| Problem identified | 118 | 34.20% |
| Limited street parking or traffic | 94 | 79.70% |
| Limited opportunities for safe bicycle riding (unprotected bicycle lanes, places to lock your bike) | 38 | 32.20% |
| Availability of public transportation | 14 | 11.90% |
| Clear and understandable transportation signs and directions | 9 | 7.60% |
| Other | 9 | 7.60% |
| Cost of transportation | 5 | 4.20% |

5. Mental health and substance use disorders

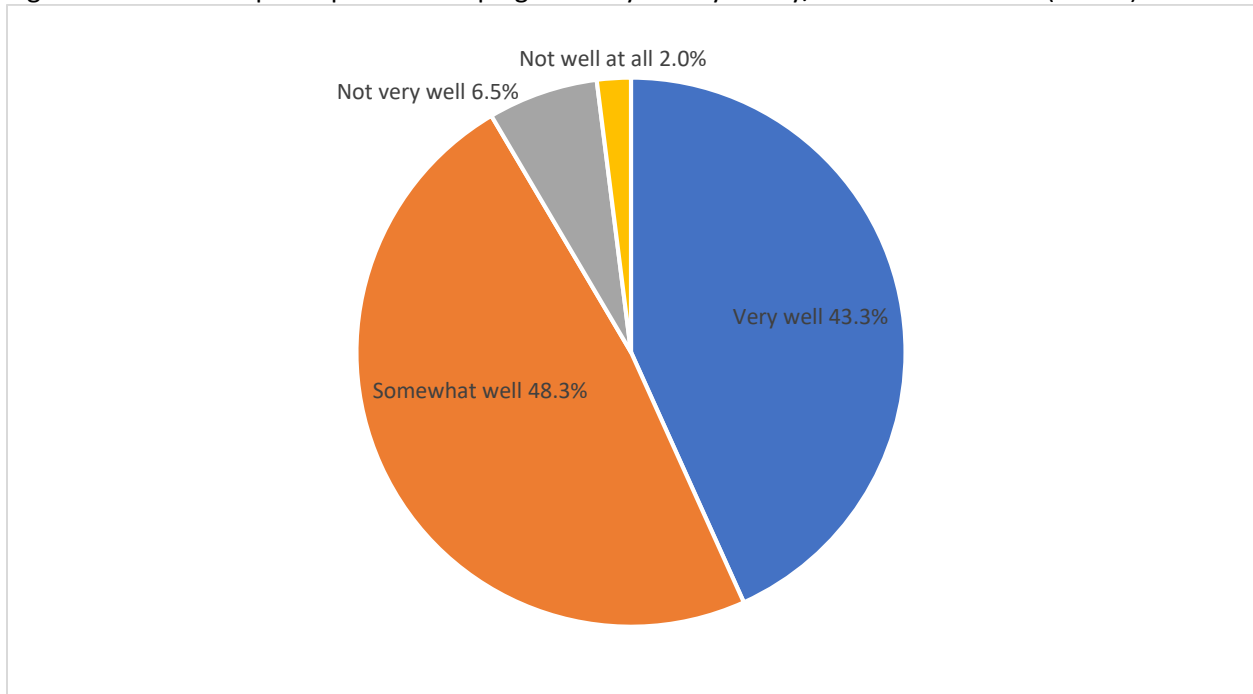
As shown in Figure 15, roughly three-quarters of survey respondents provided data about the number of days they felt worried, tense, or anxious (269 or 77.7%) and sad, blue, or depressed (276 or 79.7%) in the last 30 days. Nearly 75% of those who responded to the question reported feeling worried, tense or anxious on one or more days in the past 30; 31.6% reported feeling that way for 10 or more days. Nearly 60% of those who responded to the question reported feeling sad, blue, or depressed on one or more days of the last 30; 14.1% felt that way on 10 or more days.

Figure 15. How many days during last 30 days respondents felt worried, tense, or anxious (n=269) or sad, blue, or depressed (n=276)



Among the survey participants, 201 or 58% provided information about how well they are coping with the day to day demands of raising children and/or caring for a family member. As shown in Figure 16, 43.3% believe they are coping very well and 48.3% believe they are coping somewhat well. In contrast, 6.5% believe they are not coping very well and 2.0% believe they are not coping well at all.

Figure 16. How well participants are coping with day-to-day family/childcare demands (n=201)



Ten (2.9%) respondents indicated that they needed substance use services/treatment over the past 12 months; half were able to access the services they needed and half were not. Seventy-two (20.8%) reported that they needed mental health services in the last 12 months. While most (70.8%) were able to access the mental health services they needed, 29.2% were not.

6. Concerns related to children

As shown in Table 32, 64 (18.5%) of respondents provided the age of their children (86 children total).

Table 32. Ages of children parented/cared for by survey respondents

| | | |
|---------------|----|-------|
| 0 - 3 years | 19 | 22.1% |
| 4 - 5 years | 8 | 9.3% |
| 6 - 10 years | 20 | 23.3% |
| 11 -14 years | 23 | 26.7% |
| 15 - 17 years | 16 | 18.6% |

Between 167 (48.8%) and 180 (52%) survey participants provided data about nine adverse conditions to which their children may have been exposed. Table 33 below shows those whose children experienced each condition somewhat or very often since their child was born. The most common condition to which children were exposed either somewhat or very often was financial hardship (22.2%) followed by living with a divorced or separated parent (19.6%), bullying (13.2%), and living with someone who has an alcohol or drug problem (12.2%).

Table 33. Adverse conditions to which respondents' children were exposed somewhat or very often

| | | |
|--|----|-------|
| It's been very hard to get by on the family's income/hard to cover the basics like food or housing (n=180) | 40 | 22.2% |
| My child lived with a parent/guardian who got divorced or separated after he/she was born (n=179) | 35 | 19.6% |
| My child was bullied online, at school, or in the neighborhood (n=167) | 22 | 13.2% |
| My child lived with anyone who had a problem with alcohol or drugs (n=180) | 22 | 12.2% |
| My child lives with anyone who was mentally ill or suicidal, or severely depressed for more than a couple of weeks (n=177) | 16 | 9.0% |
| My child lived with a parent/guardian who died (n=179) | 7 | 3.9% |
| My child witnessed any violence in the neighborhood (n=172) | 4 | 2.3% |
| My child saw/heard any parents or adults in the home slap, hit, kick, punch, or beat each other up (n=180) | 4 | 2.2% |
| My child lived with a parent/guardian who served time in jail or prison after he/she was born (n=179) | 2 | 1.1% |

7. Health care

Most (87.1%) have at least one person they think of as a personal doctor or health care provider; 62.7% have one such person and 24.4% have more than one. Just under 13% have no one they think of as their personal doctor or health care provider. In the last 12 months, 8% of participants needed to see a doctor but couldn't because of cost. As shown in Table 34, 50.7% of respondents turn to primary care at Martha's Vineyard

Hospital when they are sick or need advice about their health care, 23.4% rely on a doctor’s office on the island, 19.4% use the MVH emergency room, 18.4% rely on a provider or facility on the mainland, and 12.8% go to Island Health Care. Five percent have no usual source of care.

Table 34. Sources participants turn to when sick or for advice about their health care (n=302)

| | | |
|--|-----|-------|
| Martha's Vineyard Hospital primary care department | 154 | 51.0% |
| A doctor's office on the island | 71 | 23.5% |
| Martha's Vineyard Hospital emergency room | 59 | 19.5% |
| A provider or health care facility on the mainland | 56 | 18.5% |
| Island Health Care | 39 | 12.9% |
| No usual place | 15 | 5.0% |
| Some other kind of place on the island | 10 | 3.3% |

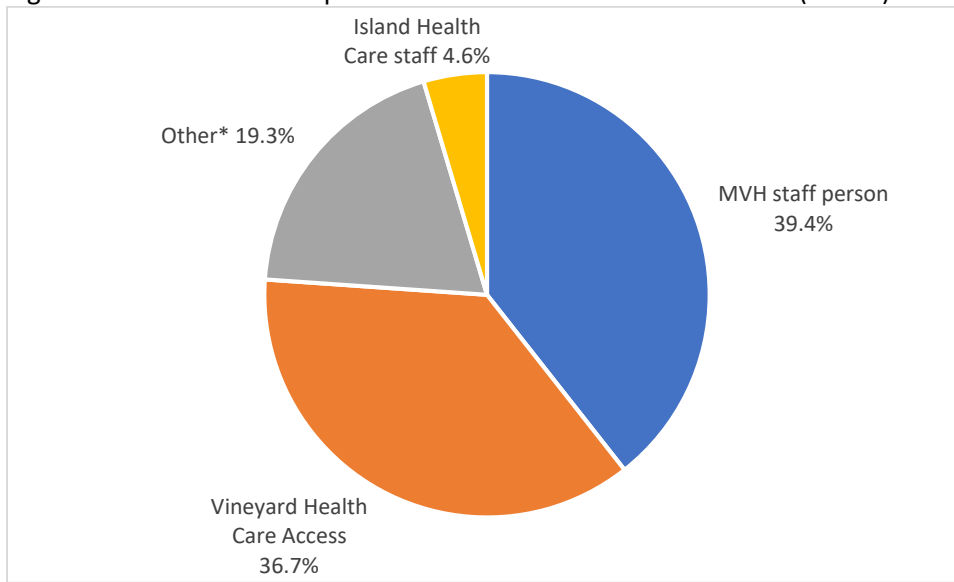
Most (62.8%) of the respondents use employer-sponsored health coverage to pay for medical care (See Table 35). Nearly 21% use Medicare and/or Medicare and a supplement and 7.6% use a Medicaid-related source of payment. Four (1.4%) indicated they have no health care coverage.

Table 35. Type of health coverage used most by respondents to pay for medical care (n=288)

| | | |
|--|-----|-------|
| Your employer or someone else's employer | 181 | 62.8% |
| Medicare and/or Medicare and supplement | 60 | 20.8% |
| Medicaid, MassHealth, CommonHealth or MassHealth HMOs | 22 | 7.6% |
| A plan that you buy on your own or someone else buys for you | 10 | 3.5% |
| Commonwealth Care | 6 | 2.1% |
| None | 4 | 1.4% |
| Some other source | 3 | 1.0% |
| The military, CHAMPUS, TriCare or the VA (or CHAMP-VA) | 1 | 0.3% |
| The Indian Health Service | 1 | 0.3% |

As demonstrated in Figure 17, of the 109 respondents who indicated they received assistance in accessing health insurance, 39.4% received assistance from a staff person at the Martha’s Vineyard Hospital and 36.7% were helped by Vineyard Health Care Access.

Figure 17. Sources that helped individuals access health insurance (n=109)



*employer/through work, spouse, Council on Aging, Dukes County Social Services, other health system

As shown in Table 36, 61 survey participants indicated that they faced barriers to medical care in the past year, much of which was related to limited street parking or traffic (39.3%).

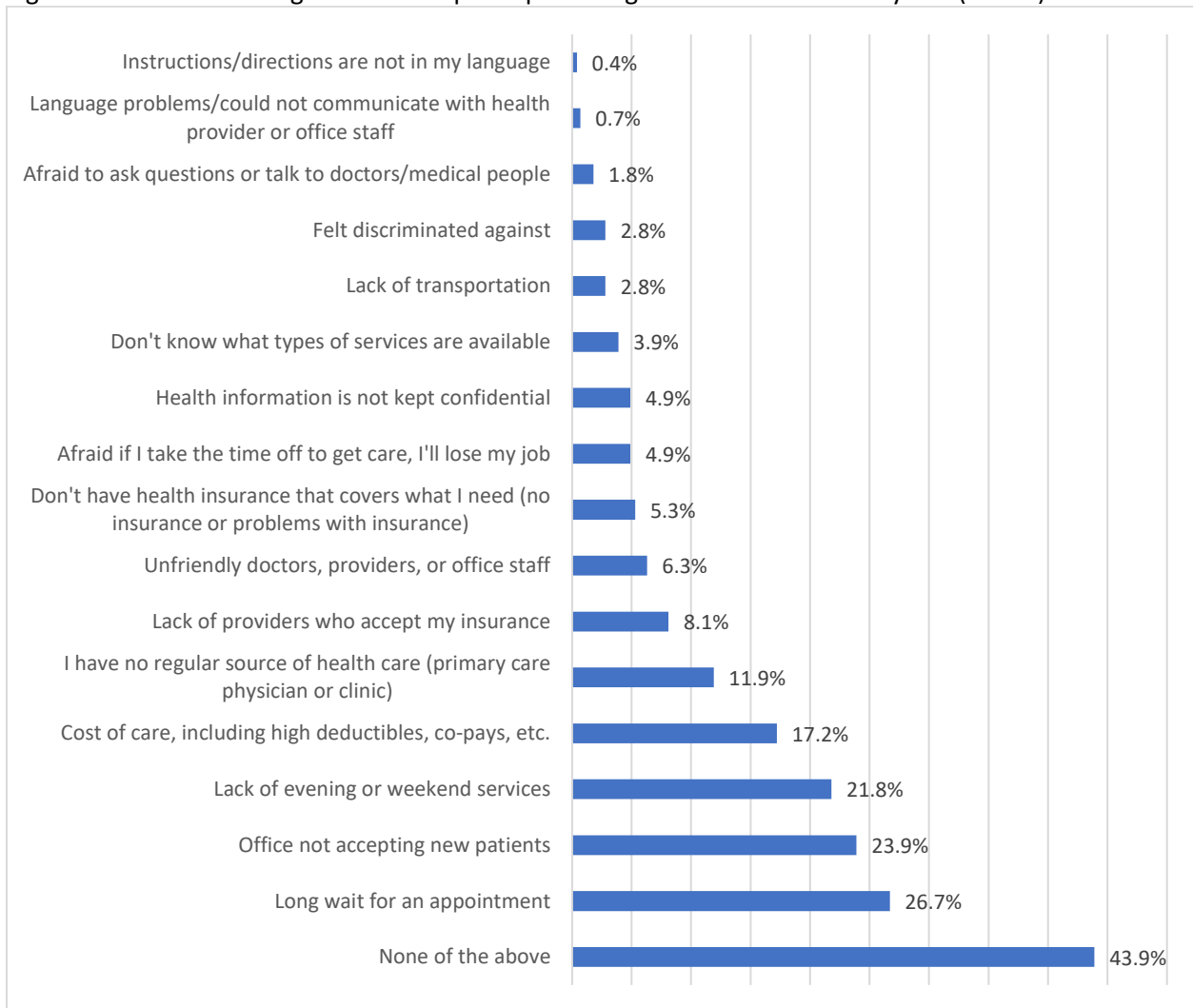
Table 36. Barriers to medical care in the past 12 months (n=294)

| | | |
|--|------------|--------------|
| Faced none of the listed barriers | 233 | 79.3% |
| Faced one or more of the listed barriers | 61 | 20.7% |
| Limited street parking or traffic | 24 | 39.3% |
| Cost of transportation | 14 | 23.0% |
| Other (please specify) | 13 | 21.3% |
| Limited opportunities for safe bicycle riding (unprotected bicycle lanes, place to lock your bike) | 7 | 11.5% |
| Availability of public transportation | 6 | 9.8% |
| Clear and understandable transportation signs and directions | 1 | 1.6% |

Other: Ferry cancellations; lack of availability of ferry reservations; cost of off island transportation; insufficient parking at MVH; poor sidewalks; family issues

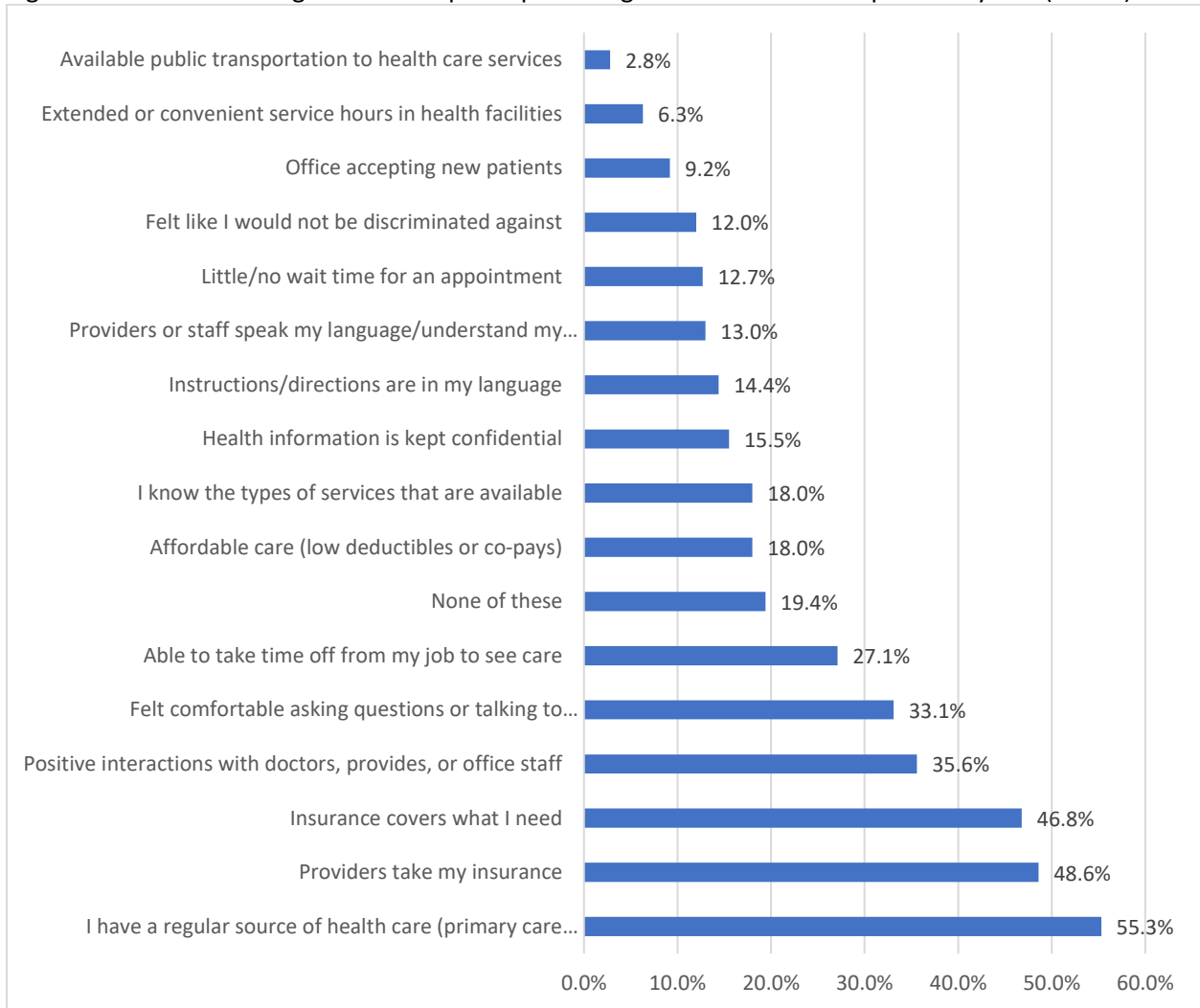
They also identified factors that made it harder for them to get care in the last two years (See Figure 18). Nearly 44% reported that none of the listed factors interfered with their ability to get care. Long wait times (26.7%) and offices not accepting new patients (23.9%) were the most commonly selected factors identified as interfering with care.

Figure 18. Factors making it harder for participants to get care in the last two years (n=285)



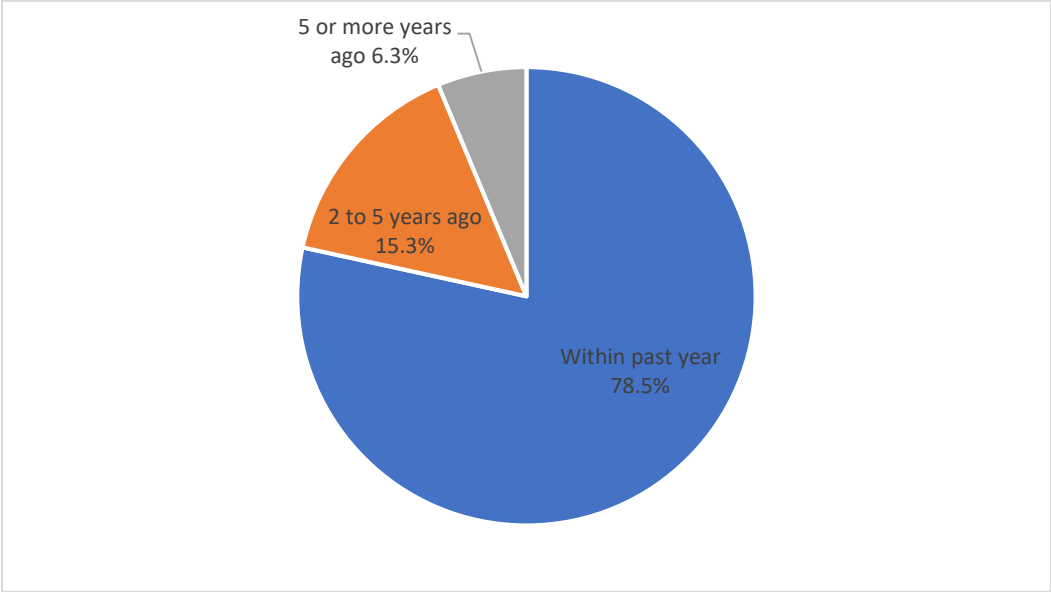
Several participants also identified factors that made it easier for them to get health care in the past two years (See Figure 19). Having a regular source of care (55.3%), providers accept the respondents' insurance (48.6%), and insurance covers what is needed (46.8%) were the most commonly reported facilitators to health care.

Figure 19. Factors making it easier for participants to get health care in the past two years (n=284)



As shown in Figure 20 below, none of the participants who responded to the question about the timing of their last dental check-up (289 or 83.5%) reported that they had never seen a dentist. In fact, most (78.5%) had a check-up within the last year. The rest, 21.6%, had an appointment two to five years ago (15.3%) or five or more years ago (6.3%). Sixty or 20.9% indicated that they did not see a dentist within the last year due to cost.

Figure 20. Length of time since last dental check-up (n=289)



C. The Martha's Vineyard Hospital Annual Public Forum

The second annual community forum on June 4, 2019 was 90 minutes in length. Martha's Vineyard Hospital President and CEO, Denise Schepici gave a 60-minute presentation on the hospital's progress to address community needs over the past year. Primary care in particular has vastly improved since 2016. Over the past year, MVH added four additional physicians to its primary care staff resulting in a total of 14 physicians and five nurse practitioners. Two new providers will be added, one each in 2020 and 2021. The waitlist for getting a primary care provider was eliminated. Currently, the patient panel for primary care is 12,500, but thanks to expanding offices and schedules, the capacity will increase even further. According to Denise Schepici, the hospital's primary care service is on track to have sufficient capacity to serve all year-round residents. MVH's investments in housing for its staff, loan forgiveness and tuition reimbursement, and mentorship and training have played an important role in the hospital's ability to attract and retain staff.

The final 30 minutes of the meeting was reserved for questions and comments from forum participants. A few offered their appreciation for the amount of progress the hospital had made addressing the concerns that were expressed in the previous year's community forum, including increasing transparency and improving primary care.

There were a few questions about hospital services. For example, one involved whether the hospital will begin to offer abortion services, which it will not due to issues of quality, privacy and demand. Another inquired about whether the hospital plans to expand its wellness services (e.g., Reiki, acupuncture, chiropractic care). Although the hospital offers some wellness services currently, there is no plan to increase the number of those services offered at the hospital as there is no desire to compete with other providers of such services on the island.

The majority of questions and comments concerned elder care services. With regard to skilled nursing beds at Windemere, meeting participants were interested in whether the hospital would maintain the Windemere licenses and were assured that the hospital would continue to own the property, maintain licensing, and work in partnership and share governance with the nursing home. A concern about whether the number of licensed beds at Windemere is sufficient to meet the needs on the island was addressed by an explanation that, based on utilization and wait list numbers, the number of licensed skilled nursing beds is sufficient for the demand for that level of care, but that other levels of care are also needed on the island. Interest was expressed in having the hospital facilitate a process with other community partners to address the need for different levels of care, especially home-based care (which is complicated because a new cadre of home care providers on the island would face the already strained market for year-round housing). The questions and discussion reflected a growing concern about the aging of the island's population and the increased need for senior services in the coming years.

D. Key Informant Interviews¹⁰

1. Community assets and changes over time

There was agreement among the participants that Martha's Vineyard is a close-knit community with people who are committed to the helping one another in times of need.

"We are a true community and really rally and support each other in times of crisis."

The community was also described as safe.

"We don't have guns, gangs, and violent crime like you see elsewhere."

The interview participants identified a number of positive attributes of the island, including the schools, the environment, the hospital and other health and social service agencies, and public transportation. Service providers were reported to be smart, determined, and committed to serving island residents. Although challenges exist, most reflected a similar sentiment about the community.

"This is a great place to raise a family. People really care about each other."

One person described the island as *"unique in all the country"* because people of different socio-economic status know, like, and help one another. The participant explained that, for the most part, islanders are not segregated by social class. Others, however, argued that differences in power and influence do exist on the island and believe the political climate has made the island feel more polarized in recent years.

"The community is quick to help those in need, although things are still dominated by special interests. Not all groups are equally represented."

Several talked about the seasonal nature of the island, with massive population growth in the summer and the impact of tourism on businesses and incomes.

"We are a rich island for three months, then [we are] very poor."

There was also an acknowledgment that, as a small community, privacy and the fast spread of misinformation are concerns.

When discussing how the island has changed in the last few years, most explained that the population has increased and become more diverse, specifically noting the growth of the island's Brazilian community. Interviewees also reported that there is a growing population of seniors on the island with a coinciding demand for a range of senior care services. Many interviewees described how the island's strained housing market has caused significant challenges for many populations on the island and

¹⁰ Although a single key informant may have been engaged to share expertise on a given issue (e.g., housing or cancer) or about a population (the Wampanoag Tribe or Brazilian community), more than one key informant discussed each the needs and challenges described in this section. However, it is important to note that the perspective of the key informants may not be shared by all those affected by a given issue or who are members of the Wampanoag Tribe and Brazilian community.

complicated or exacerbated problems such as substance use disorders, homelessness, and the ability to recruit much needed providers on the island. Several said that social isolation and mental health problems have increased, particularly for young adults. The seasonal nature of employment opportunities was also considered partly responsible for mental health problems and substance use, particularly alcoholism. These and other issues are described in more detail below.

2. Housing

Housing was described by all interview participants as a major challenge on the island. The cost to own a home is beyond the means of many islanders and there are too few year-round and quality rental opportunities.

“If you are a home owner here, it’s a lucky place to be. If you’re a renter, not so much.”

Interviewees estimated that 60% of the housing stock is owned by people who live off-island. By virtue of being a tourist destination, these home owners can derive significant income by renting their properties during the tourist season. Two explained.

“Many of the rentals have moved out of the year-round market and into the Airbnb arena where they can make more money...many of these units remain empty during the off-season because landlords don’t want to hassle with finding reliable tenants.”

“People live in much worse conditions here on a living wage. If people couldn’t get such huge summer rents, there would be plenty of year-round housing. Lots of people leave their houses empty in the winter.”

Although some feel the cost of available year-round rentals are comparable to those one might find in many mainland communities in Massachusetts, others disagree. All noted that housing inventory is a significant problem on the island. They stated that there are too few 12-month rentals available on the island and that many people are, therefore, living in less than desirable situations. Some live with sub-standard conditions (e.g., make shift arrangements with no plumbing, properties with poor air quality and/or mold, over-crowded living conditions).

“Due to the zero-vacancy issue, people are renting out spaces that HUD would consider not suitable for habitation.”

Some landlords rent their properties during the summer months to tourists and then offer limited leases (e.g., nine to eleven months long) to year-round residents. Thus, renters in such situations have to relocate during the island’s busiest time of year when demand for housing is at its highest and most expensive. One interviewee reported that her family lived in such a situation and, for several years in a row, had to find other accommodations over the summer months. A few noted that some families have no choice but to leave the island when their leases are up. One interviewee quoted findings from a local survey that showed that one-third of students in the island’s schools had to leave their housing in the summer to live elsewhere and 40% of students reported losing a best friend due to such moves. In addition to workers having no place to stay, several children each year are unable to finish the school year on the island because their families have to leave the island before the school year comes to an end. Members of the Wampanoag Tribe, whose families have called the island home for generations, have had to leave the island due to the housing shortage. Young people who want to stay on the island

have limited housing options and are often forced to leave. Some pointed out how problematic the “exodus” of young islanders is at a time when the senior population is growing. One expressed the following concern.

“Our community leaders are aging. Many are in the late 60’s and 70’s. When they retire, who will take over. There isn’t a next generation being mentored into these positions.”

Another argued that the housing crisis has made it difficult to attract and retain the workforce the island needs and, consequently, “[There is] no infusion of young talent for jobs.”

Participants reported that the housing crisis is a public health concern, as it has led to both physical and mental health consequences, and described it as a major force in determining the demographics of the island. Although most found it understandable that landlords would want to maximize profits and therefore would focus on renting to tourists during the island’s high season, they see the trend as extremely problematic. One person put it this way:

“We cater to the minority to the detriment of the majority.”

Several organizations supply housing to their employees. Martha’s Vineyard Hospital has 70 rentals. Stop and Shop, UPS, FedEx, the schools, and some farms, hotels, restaurants and other seasonal businesses also offer housing to employees. Nevertheless, as one interviewee explained:

“The problem of not being able to identify year-round housing is getting worse.”

A smaller population of islanders was described as chronically homeless. Temporary (i.e., seasonal) evening shelter, known as the Houses of Grace,¹¹ is provided by and at a coalition of churches on the island and staffed by church volunteers. The Houses of Grace offers overnight (7:00pm to 7:00am) shelter, bedding, dinner, and breakfast to individuals and families. One interviewee reported that the Houses of Grace were used 734 times last winter (between January 1 and March 31). The chronically homeless population was described as having major physical and mental health issues and many (perhaps half or more), are thought to struggle with substance use disorders. The population was described by several people as under-served.

“There are serious mental health issues among the chronically homeless population and no mental health services for them. Many have lived here their whole lives and fear going off the island.”

“There is no year-round shelter. We have several [year-round] shelters for animals, but none for people.”

Some argued that homelessness is on the rise due to the lack of affordable housing and coinciding with increased substance use issues on the island.

“It’s now starting with youth and gets worse from there. [There are] more suicides among young people.”

¹¹ The Houses of Grace are also open to those who may have housing, but who cannot afford heat and who, therefore, may need a warm place to stay at times during the winter months.

For those in recovery from a substance use disorder, housing can pose a very real challenge to their sobriety. One interviewee noted the need for housing options for those in recovery.

“Housing options and services for substance use disorders [are real problems] after detox. We really need integrated behavioral health services.”

Most interviewees were not optimistic that the housing challenges could be adequately addressed because, as an island, the space to build more housing is finite. Another elaborated:

“We are an island. The available land is limited and the infrastructure of the towns won’t support high rises.”

One interview participant is hopeful that the towns will pass legislation for a “housing bank” like the island’s land bank. She explained that 2% of taxes on real estate go to buy land for public use. She’d like to see something comparable (e.g., a short-term rental tax) that would help to fund affordable housing. She noted that such an effort had been tried but the process was complicated and the initiative ultimately failed.

One interview participant argued that, as an island, residents must make a decision.

“What IS the vision for Martha’s Vineyard? Right now, we have two-thirds seasonal ownership. There are 17,000 housing units and 17,000 residents [on the island]. Housing shouldn’t be a problem here. Is our vision to be a place for tourism and a comfortable retirement community? Or do we want to be a community where you can raise children, where elders who want to downsize can do so, where we have a diverse population, where we can hire and retain teachers to educate our children? Who do we want to live here...Only the wealthy who own a vacation or retirement home?”

3. Mental health and substance use

Interview participants described mental health and substance use disorders as pervasive on the island. Many believe the problems have their roots in early life experiences; several talked about the impact of divorce, family instability, trauma, poverty, and housing insecurity as causing major stress for the island’s children and youth. Large numbers of young people, particularly young men, were described as living with anxiety, depression, bipolar illness and schizoaffective disorders. A couple indicated that these issues often go undiagnosed in school. A “culture of marijuana use” and easy access to alcohol provide outlets for self-medicating and set the predicate for many to develop substance use disorders. There was also concern expressed about how the use of drugs and alcohol at a young age is affecting brain development in the island’s youth. Regardless of age, stigma related to mental health and substance use was described as a barrier to care as people are reticent to ask for help.

“It’s a great place to be if you need the community, but not if you have...a heroin issue.”

One interviewee described the opioid epidemic as creating an opening to talk about addiction, although a lot of work remains with regard to addictions.

“Alcohol use has always been high here. Opiate use has increased, but we have come together to de-stigmatize that. In fact, sober housing even permits medication assisted treatment now. But

we don't see alcoholism as a medical problem here. The line between safe and at-risk drinking is unclear. Opiates have caused us to talk more about addictions, but we don't have the answers to addiction yet, especially alcohol."

Another interviewee explained that, although excellent care is available on the island, alcoholics don't feel well-served.

"The frequent flyers get patched up and then sent out the door."

Several interview participants acknowledged the need to work together to find a way out of this crisis caused by mental health and substance use disorders on the island. Some feel service provision is headed in a positive direction with the opening of a recovery center on the hospital campus. One feels the number of mental health resources per capita on Martha's Vineyard is good, but added that there was a "disconnect" from referral to intake and people can easily fall through the cracks. Another reported that the fairly recent addition of clinicians in the schools has been helpful for catching problems earlier. But often, when a child has a behavioral health problem, he/she has to leave the island for treatment, as there aren't enough behavioral health services for young people on the island. In such situations, families often face financial barriers, as many of the skilled clinicians are private pay.

Some feel the island's capacity to address mental health and substance use disorders falls far short of the need, but acknowledge there is a lot going on to come up with solutions.

"Martha's Vineyard Community Services has behavioral health services and the hospital has limited part-time clinicians, but they have long wait times. Private clinicians are overwhelmed too. Wait lists are very long. There is an opening for a psychiatric nurse but, with no housing, it's hard to fill the position. Little can be done here in a crisis situation or even for long-term support, so we do what we can to help people access care off island."

The Portuguese-speaking community faces additional barriers to care.

"The problem is greater for the Portuguese-speaking community because we don't have fluent clinicians and translation isn't adequate."

Participants called for additional training to combat the behavioral health crisis on the island. According to a couple of interview participants, the police recognize an increase in mental health and substance use disorders and are interested in additional training on mental health first aid so they can provide appropriate responses to those with behavioral health problems. The interviewees believe the same interest for training exists at the high schools and at a number of health and human services organizations on the island. They would like to engage the courts as well because so often those with behavioral health issues end up in the criminal justice system. Although some training has taken place with police and EMS around Narcan administration, some feel additional training with other community providers is also necessary, particularly for those working with young adults, the population on the island most at-risk for opioid overdose.

Interview participants also recognized the need to provide coordinated behavioral health services in conjunction with medical care at sites on the island.

“We need a whole person approach and we also need to bring medicine to the homeless shelter, and a multi-disciplinary approach with social workers, peer counselors, psychiatry, and physicians all at the hospital doing case conferences in order to do this better.”

“We need better coordination of care and communication across agencies...We need to decide who will do which pieces so we can use our resources wisely.”

The new Island Integrated Public Health Collaborative is a collaborative of multiple organizations from across the island, including police, health care, mental health, and social service agencies, etc. that will build structure for ongoing needs assessment, strategic planning, measurement, public reporting on service delivery performance, outreach and engagement with patients and the community, and workforce development with the potential for shared services. The organization’s initial focus will be on data related to mental health, substance use disorders, and other behavioral health issues including environmental and social determinants of health.

4. Aging

Several interview participants talked about the growing population of seniors living year-round on the island. They noted that the island is an attractive retirement location. Contributing to the growth of the population are seniors who decide to use their formerly summer homes on the Vineyard as year-round residences in retirement. Although interviewees described a range of contributions made by the elder population (e.g., leadership, knowledge, fundraising), they also expressed concerns about the capacity of the island to care for an aging population. As one interview participant explained, in 2010, one in six island residents was 65 or older. By 2030, the ratio will be one in three. Interviewees were concerned about a range of issues, including housing, health care, transportation, and caregiver support for this aging population.

“If we are thinking strategically, the need for home care and services in the community is paramount. We need to prepare for the demands of the demographic changes.”

At a time when seniors are increasingly experiencing co-morbidities, the island is unable to provide the full range of medical services they need, including geriatrics, neurology, and urology. Although there is a van designated to transport seniors to medical care off island, it operates only once a week. Less than 10% of seniors, one interviewee noted, have a health care proxy. As a group, the need for physical and occupational therapy among seniors strains the current availability and will likely exceed service capacity over time. The difficulty island residents in general experience when trying to access dental care¹² is particularly acute for seniors whose needs are great and ability to travel for care is limited. Interviewees further explained that mobility and hearing loss often go unaddressed and that seniors are particularly at-risk for isolation, depression, and unhealthy alcohol use; such issues often result in increased falls and injuries among seniors.

Along the housing continuum, seniors face challenges. Those who are able to live independently often have difficulty downsizing to something more manageable due to the scarcity and cost of housing on the

¹² Although not necessarily reflected in the interviews, the CBAC members believe sufficient data exists to indicate that access to dental care and the affordability of dental care are issues affecting islanders more broadly than just this population.

island. Those that require some level of facility care also confront problems. As one interview participant explained:

“The Green House project [a long-term care model being implemented on the island] is not moving fast enough. The growth in the population is outpacing the solution.”

One interviewee called the lack of assisted living and home care on the Vineyard a “big concern” and added that these needs will become more pressing as the population ages and increases. The island’s nursing home capacity is limited and, as one person explained, seniors are often reluctant to show vulnerabilities as they fear they will be moved off island in order to get them into a facility with an appropriate level of care. Reportedly, there is also stigma related to dementia and few caregivers and no dementia care facility on island.

5. Access to and coordination of services

Several interview participants described the hospital as making great strides in its responsiveness to the community.

“The hospital is a great asset now. People feel very good about the new leadership and the transparency.”

Several commented about improvements in access to primary care thanks to work done at the hospital over the last year. One interviewee also explained that Island Health Care provides primary care via its Nurse Practitioner (NP) care delivery model. The NPs collaborate with physicians; there are no physicians on staff at the health center.

Although interviewees feel good about the hospital’s role in the community and the quality of the care it provides, they also recognize limitations of what is available.

“We have wonderful, caring people at the hospital, but fewer than what is needed.”

Nearly all of the interviewees described the limited number of providers on the island, particularly specialists (e.g., endocrinologists, pulmonologists, urologists). They also noted that many types of specialty care are not represented on the island and that some medications are not stocked at the pharmacy. By virtue of being an island, they explained, there are limits to the space available for health care.

“IHC could offer more if the health center had more space.”

They also explained how the housing shortage impacts the ability to recruit the full range of providers, from physicians and nurses to home health or behavioral health providers. However, a couple also made the point that attracting and retaining providers is not just a matter of housing them.

“Housing is not the only problem in retaining providers...not everyone wants to live on an island. We have lost providers because they or their families find it too hard to live here. You can’t just go to a show or a museum.”

Due to provider shortages or the unavailability of some types of care, residents must travel off island to access services on the mainland. Multiple residents described both the expense and difficulty of travel off island, especially in the summer.

"[Accessing] off island care is expensive; insurance won't pay for travel or hotels. We need money to help people stay off island for the care they need."

"We offer transportation to get people to care ON the island but OFF island is another issue. Paying for transport and housing is expensive."

"In the summer, you can't get ferry reservations and travel to MGH is necessary [for some cancer treatments]. The bus for seniors is just once a week. Cancer patients under 65 can use it if it isn't full, but you have to wait to see if it is full; that doesn't work for people."

The limited availability of ambulance services for off-island transport of patients from the hospital to onshore facilities is another problem described by one interviewee.

"Getting ambulances for off island transport is a problem. People stay in the ED for extended periods, sometimes days at a time, and they lose their beds offshore while we wait for an ambulance to transport them."

Some interview participants also described the challenges of communication and coordination of care between their providers on the island and those on the mainland.

"There is poor communication with off-island providers and hospitals."

"[It is] hard to get what you need; one stop care isn't available [on the island]. You get pushed and pulled between Boston, the Cape, the island. There is little continuity."

A few interview participants discussed the role that telehealth (e.g., remote patient monitoring and e-consults) could play to address some health and behavioral health issues on the island by connecting patients to providers and providers to one another via technology.

"I think it's [tele-health] the wave of the future. I am hugely interested in learning more about what we can do with it. I think it could work."

Although there was agreement about the provider shortages on the island and difficulties associated with accessing care onshore, several interviewees also believe that neither providers nor patients are aware of the full range of services currently available on the Vineyard.

"Providers don't always know what is available on the island...We may have services here that people aren't even aware of."

"Some people know about the range of services here, but I think increased marketing of what we have is needed."

"I wish there was some way for all of us who provide services on the island to learn about what others are doing. I'm constantly amazed when I attend Council meetings and hear about something I have never heard of before."

There is some hope that the new Island Integrated Public Health Collaborative will help to improve coordination among a range of organizations.

Although most people have health insurance, the high costs of health care (e.g., premiums, co-pays, deductibles, services not covered by insurance) are still a barrier for some islanders. One interview participant also explained that getting people coverage and helping them to keep it affect the affordability of health care.

“Continuous enrollment in insurance [is a challenge]. Although coverage exists, lots of people don’t realize when their coverage has lapsed until after they have already gotten care. Then there are some who aren’t sure they qualify so don’t apply. Seasonal workers don’t get insurance from their jobs and may be a bit over-income for MassHealth. We need to advertise what’s available and to whom.”

6. Youth and young adults

Interview participants described the impact of housing insecurity, financial concerns, and family instability on island youth and reported an increase in mental health issues, including depression, anxiety, and suicidal ideation among youth. One participant argued that the structure of school system leads to disparities in spending and the available resources for students in different schools. Another added that social media has led to increased bullying, as well as isolation due to increased screen time. Youth substance use, specifically vaping and marijuana, were raised as concerns by a few.

“Increased vaping and marijuana. I see trouble coming. We should educate young people on the risks of THC and nicotine. We have a youth task force that could work on this, but it’s harder [to address the issue] with 18 to 24- year olds.”

The needs of young adults were raised by several interviewees. They described a lack of opportunity for this group, including a lack of education services after high school.

“Martha’s Vineyard is a great place to live until you turn 18.”

“There is no community college or training opportunities here, which leads to a lot of drinking when young people have nothing to do.”

Many described young adults as disconnected and disillusioned. They said young adults are dealing with a lot of social anxiety, which isolates them and makes it difficult to get them to participate in events or services. Participants reported an increase in suicides among young adults and that opioid overdoses are highest for this age group.

Oyster Martha’s Vineyard was described as an initiative that seeks to connect young adults who are not engaged in services and who are struggling. However, participants argued that more is needed for this age group, including adult mentorship to help them access education and develop professionally, as well as capital so some can start their own businesses.

7. Diversity, disparities, and cultural competence¹³

Most interviewees described the island as becoming increasingly ethnically diverse over time, largely due to growth in the Brazilian population. One interviewee described tremendous growth in the English as a Second Language population in the island's schools since the 1990s. Some also noted how the Brazilian community has changed over the last couple of decades. For example, one interviewee said that the more recent immigrants to the island have tended to come from rural areas of Brazil where access to education is limited and literacy is lower. Decreased levels of literacy in one's native language limits employment options and presents additional challenges to meeting the needs of the population on the island.

Some interview participants believe that racism and a lack of cultural competence are problems and that organizational improvements are needed across the island to better serve non-English speaking residents in general and the Brazilian community in particular. One interviewee reasoned that, as the Brazilian population grows, islanders are becoming more accustomed to cultural differences. However, some still believe more cultural competency training is needed among service providers on the island. The loss of in-person interpreters at the hospital was described as noteworthy and as a change that has made it more difficult for Brazilians to access care. There was recognition, however, that it is difficult to get Portuguese-speaking translators on the island due to housing challenges.

Some of the most challenging health issues identified by participants as affecting the Brazilian community include obesity, hypertension, diabetes, alcoholism, and improper use of medications (i.e., not according to doctor's instructions).

Cultural sensitivity was also cited as a concern related to members of the island's tribal community.

"[The Wampanoag] tribe is mixed in with the community, not so separate, so identifying members can be a struggle. We are intermixed, but still cultural differences exist. Trust is an issue, especially with health care. It's historical and it's current. More education is needed for providers so they understand that we are here, we are a population. There is still so much rebuilding and I think some people just want us to 'get over it.'"

The tribal community was described as needing better access to dental care and, in particular, dentists that accept Medicaid.¹⁴

"Only one dentist on the island accepts Medicaid and one for pediatric dental that takes Medicaid. We also only have basic dental here. [For the] more involved stuff, [care] has to be accessed off island and may require payment up front. There is also stigma in using the mobile dentist, like 'If I have insurance, why should I use that?'"

¹³ Because survey participation for the Brazilian community was low and only one representative for the Brazilian and tribal communities was interviewed, the CBAC determined that more assessment may be required to understand the needs of these communities on the island.

¹⁴ Although not necessarily reflected in the interviews, the CBAC members believe sufficient data exists to indicate that access to dental care and the affordability of dental care are issues affecting islanders more broadly than just this population.

Chronic disease management, especially diabetes, was identified as a particular challenge for the island's tribal community.

8. Disabilities

Island residents who have a disability were described as experiencing significant isolation, especially young adults and members of the Brazilian community. Many have trouble accessing transportation and face barriers to recreational opportunities (e.g., the beach, movies, restaurants, bowling). Many of the island's businesses are small and it's difficult for them to modify workplace to accommodate those with disabilities, especially if modifications entail significant construction. There is high unemployment and under-employment on the Island in general, but the problem is exacerbated for people with disabilities. Many people with disabilities live with their families and, as one participant explained, a lot of families feel there isn't much information available about the services that exist for their loved ones. People with disabilities often have significant health issues; several medical specialties and other specialized services (e.g., for autism) are not available on island. Accessing services on the mainland is difficult in general and even more complicated for those with disabilities. An interviewee described what he believes is necessary.

"[We have] three small towns and three tiny towns. There is a lot of duplication. We should regionalize (i.e., island-wide vs. town-specific) some activities, which would be better in terms of expertise and resources. Building inspectors are especially important for people with disabilities. All the towns have similar issues."

9. The LGBTQ population

The island's LGBTQ community was described as experiencing social isolation, a heightened risk of substance use disorders, and disconnection from health care. One interviewee explained that bias still exists within the health care sector and that tolerance training is needed; these and other challenges are particularly salient for the transgender community.

"Providers don't really understand them [transgender individuals]. There is no endocrinologist on island who can deal with hormone issues, which are a big deal for this population. They need better access to off island services and better coordination of care between providers. Tolerance training for docs and regular hormone screenings are needed; they feel the bias."

Although the island was generally described by interviewees as a safe community, members of the LGBTQ community still confront issues of safety when alone in public or out at bars and restaurants.

One interviewee explained that education is needed for both parents and providers to help children who are questioning their gender identity or sexual orientation. Rather than leaping to a radical conclusion, such as hormone therapy, the interviewee argued that parents and providers need to understand how to help children navigate the process.

"Lots of kids are questioning. Parents and docs need training on how to help them as they work their way through figuring it out. Questioning is not the same as trans or gay...it is a process."

10. Poverty and food insecurity¹⁵

A few participants talked about the lack of economic opportunity, particularly year-round and for young adults, on the island.

“There is more poverty than you think here and it affects access to everything.”

In addition to the housing challenges described above, difficulty securing proper visas is a problem when people are looking for work.

“Lots of people work under the table.”

A related issue discussed by several participants is food insecurity. One interviewee reported that the number of children accessing free and reduced lunch at school has grown dramatically over time and that a snack and breakfast were added to ensure children have sufficient nutrition and sustenance during the day. Another described the Island Grown Initiative’s gleaning program that gathers and redistributes food to organizations for distribution to needy individuals and families across the island.

“A lot more people than you’d think are in need of food, especially among seniors who are isolated. The Island Grown Initiative helps a lot... We give 30 to 40 packets of food a month out at the health center. There is a big disparity in wealth out here.”

11. Chronic Disease

Overweight and obesity and a long-standing problem of poor nutrition and eating choices exist on the island generally. Obesity was identified as a particular challenge affecting the Brazilian community, as well as hypertension and diabetes. For the tribal community, managing chronic disease in general and diabetes in particular has been problematic.

“This [diabetes management] is a big issue. We get a federal grant, but still people have to go off island for a lot of their care. For any chronic illness, it’s hard to get what you need.”

Cancer was described as a problem affecting many Vineyard residents. Although information about cancer prevention was described as widely available thanks to the internet, there is some confusion about the cause or explanation for elevated rates of some cancers.

“The number of new cases is alarming to me. Although it’s anecdotal, I’ve heard about so many people, many who are young and healthy, who have been diagnosed. It makes me wonder if there are some environmental issues we should be worried about.”

¹⁵ CBAC members reasoned that food insecurity was not identified as a greater problem on the island because there is a great deal of work going on to address it and there may be an impression that, in large part, the problem is being addressed through these existing programs. Poverty was discussed as an important factor underlying all of the issues discussed in the report. However, it was acknowledged that poverty is not a necessary pre-cursor for the most significant conditions facing the island’s year-round residents, namely the housing challenges, behavioral health issues, problems with access to/coordination of care, and aging-related challenges and services.

“We have a large aging population here and cancer is more prevalent among seniors so I think that is probably why the numbers [prevalence of some cancers] are higher [on the island than elsewhere in the state]...in the case of skin cancer, people know they should wear sun block, they just don’t do it.”

One interviewee described cancer as “*financially toxic*” for families, but said that is the case no matter where patients and their families live. She went on to talk about the strides the island has made to serve Vineyard residents affected by cancer, including increased screening thanks, in large part, to the fact that EPIC [the electronic medical record] flags primary care providers to order and/or perform routine screenings. However, it appears that providers and residents may not know all of the cancer services available on the island.

“For a community and hospital of this size, we are able to do a lot, but people don’t know they can get as much care as they can here. We need to publicize what we can do to residents and the mainland oncologists so people don’t travel unnecessarily. They can get chemo here.”

Although several cancer-related services are available on island, those affected by cancer are required to travel to the mainland for others, including biopsies. If a full-time oncologist were available on the island, argued one participant, patients could get all of their cancer-related needs met on the Vineyard.

The island’s cancer support group was described as an excellent resource for cancer survivors, in part because it provides funds to patients to help defray the costs not covered by insurance, including travel. However, off-island travel can be problematic for other reasons; in the summer it can be difficult to get a ferry reservation. Currently, no support group exists on island for families or caregivers of those with cancer.

12. Tick-borne illnesses

A couple of interview participants described the high rates of Lyme disease and other tick-borne illnesses as a problem on the island. They explained that part of the benefit of living on the Vineyard is its natural beauty and the many opportunities available to enjoy the outdoors. But with so many residents both recreating and working outdoors, the risks of tick-borne illnesses are heightened. The interviewees described the impact of tick-borne diseases, and Lyme disease in particular, on residents, as well as the fatigue related to messaging about it and challenges related to treatment.

“People get sick and then they can’t work, and that leads to financial instability.”

“[Lyme Disease is] really high here. And I can’t help but wonder if there is a connection with mental health. I am not sure we know all the ways Lyme affects the body. People are so tired of hearing about it and nobody takes it seriously. And there is resistance to treatment in the medical community; antibiotics fear is a real problem.”

13. Vision for the future

Collectively, interview participants offered a bold vision for the island that could be summed up as “*Better health for all residents of Martha’s Vineyard.*” They believe a number of strategies are necessary to ensure the realization of this vision, including:

- Access to primary care and insurance for all islanders;

- Adequate, affordable, and stable housing for all island residents;
- More on-island mental health and substance use treatment resources, including support for families of individuals struggling with these issues;
- Better coordination of health and behavioral health services, including screenings and a multi-disciplinary approach to care;
- Appropriate levels of care and more care coordination for seniors to combat isolation and depression;
- Greater cultural sensitivity and more Portuguese-speaking clinicians and counselors;
- Communication about the range of services already available on the island; and
- Resources for people who need to get off the island for services, including reliable ambulance transport from the hospital to off-island facilities.

Although a number of issues are important pillars of a vision for improved health for all islanders, housing was the most frequently cited need by interview participants given its implications for public health and the demographics on the island. Some recognized that the solutions they proposed for a number of other problems on the island would be undermined if the housing situation isn't addressed.

"A lot of solutions are predicated on the ability to have stable housing."

Some interview participants discussed systemic issues that impact the availability of resources on the island and the ability to maximize those resources that exist. One argued that the island is often included in proposals made by organizations on the mainland to secure health and behavioral health resources, but that the island does not always benefit from inclusion in those proposals when funded.

"We need to advocate for Martha's Vineyard and Nantucket when Cape agencies get funding under the auspices of "Cape and Islands" – we are not getting our fair share."

Others discussed how the governance structure on the island contributes to some of the resource issues that interview participants identified.

"We need some forward-thinking from our government leaders. We need a unified approach. We should be taking inventory of our resources as one community, not six...At some point we should regionalize the school system, police, fire, etc. We could get rid of redundancies, bring down costs, lower taxes, and maybe make housing more affordable."

III. Conclusions and next steps

The CHNA data serve to weave a complicated story about the health and behavioral health of Martha's Vineyard residents and the underlying social determinants of health. There are numerous important issues that impact sub-populations on the island, each of which deserves attention to ensure the health and well-being of those groups. However, four major themes emerged from the research based on the priorities of residents, as identified by key informants, and supported by the secondary data. These themes are:

- (1) Insufficient inventory of and access to quality affordable year-round housing has a significant impact on the health and behavioral health of many island residents and their ability to remain on the island. It also complicates the ability of organizations on the island to hire and retain much-needed clinicians and staff to provide health and behavioral health services.
- (2) There are a number of services island residents cannot secure on the island, but gaining access to care on the mainland is costly and challenging, particularly in the summer months or when ambulance transport is needed from the hospital to an off-island facility. It is also essential to ensure coordination of care among providers, particularly those on- and off-island. Because providers and residents do not have a full understanding of the range of services available on the island, some may be traveling off-island to access care unnecessarily.
- (3) Mental health and substance use disorders are growing concerns and there are too few behavioral health clinicians and services available on the island, especially for Portuguese-speaking residents and who are trained to work with children and youth. Several populations appear to be at risk for behavioral health problems, including young adults; those who are homeless; isolated seniors and people with disabilities; and children and youth who've experience family and housing instability and other adverse life events.
- (4) The demographics of the island are shifting as many younger adults leave to pursue opportunities on the mainland that are not available to them on the Vineyard and as more seniors retire to the island. Although efforts are underway to improve services for this population, there are levels of care needed that are not available or plentiful enough to meet the needs of the island's growing elder population, including home-based and mental health and dementia care.

The CBAC reviewed the CHNA report and, at its July 16, 2019 meeting, discussed the assessment findings. In addition to accepting the major themes as priorities for strategic implementation planning phase, the group also identified other issues it considers important and worthy of more discussion. These issues are: Ensuring the needs of the Brazilian community, tribal community, and seasonal residents are explored and better understood; understanding better the role of poverty and food insecurity in the lives of islanders; preventing and ensuring early treatment of Lyme disease and other tick-borne illnesses; improving access to dental services; and cultivating community leaders from among younger residents/succession planning. The report was shared and a summary of the themes and priorities presented to the MVH Board of Directors on July 26 to ensure the Board's ongoing engagement in the hospital's community benefit work.

Phase II of MVH's FY2019 community benefit process will be to engage hospital leaders, the CBAC, and other community partners, including selectmen and health agents, in strategic implementation planning to address the priorities identified in the CHNA.

Appendix A: MVH Community Benefit Advisory Committee (CBAC) Members (with area of expertise)

Denise Schepici, President & CEO, Martha's Vineyard Hospital (Health Care)

Katrina Delgadillo, Director of Communications & Public Affairs, Martha's Vineyard Hospital (Health Care)

Cynthia Mitchell, CEO and Executive Director, Island Health Care (Health Care)

Kathleen Samways, Director, Quality Improvement and Enabling Services, Island Health Care (Health Care)

Robert Laskowski, Secretary, Dukes County Health Council (Seniors)

Patricia Moore, Healthy Aging Martha's Vineyard (Seniors)

Richie Smith, Assistant Superintendent, Martha's Vineyard Public Schools (children/youth)

Kayte Morris, Island Food Pantry (Food insecurity)

Karen Tewhey, Dukes County Associate Commissioner for the Homeless (Housing insecurity)

Karen Casper, Emergency Room Physician, Martha's Vineyard Hospital (Substance Use Disorders)

Valci Carvalho, Pharmacist, Martha's Vineyard Hospital (Brazilian Community)

Tavinder Phull, Director, Community Health Reporting & Compliance, Partners HealthCare (Health Care)

Michael Stoto, Professor of Health Systems Administration and Population Health at Georgetown University (CHNA)

Hope Worden Kenefick, Consultant, HWK Consulting, LLC (CHNA)

Samantha Schlageter, Intern (CHNA)

Appendix B – Martha’s Vineyard Quality of Life Survey

SECTION I. Introduction

In this survey, we are trying to identify the needs and strengths of Martha’s Vineyard and its residents. Martha’s Vineyard Hospital will use the survey information, along with other data we are collecting, to develop a plan to address major health issues on the island. We will repeat this survey every three years to assess our progress in improving the quality of life on the island.

Filling out the survey is voluntary, and your responses are anonymous. You will not be asked your name, address, or any other information that can identify you. This survey will take about 15 minutes to complete. At the end of this survey, there is information on how you can enter a raffle for a gift basket with \$200 in gift certificates to local stores as a thank you for your time.

Martha’s Vineyard is a diverse community with a rich history and wonderful traditions. But, like any community, the Vineyard faces many issues that affect the health of those who live here. Together, we can make the Vineyard an even better place to live, but we need to hear from you! Thank you for taking this survey.



1. Looking at the map above, in which town do you live? (Pick only one)

- | | |
|--|---|
| <input type="checkbox"/> Aquinnah | <input checked="" type="checkbox"/> Oak Bluffs |
| <input type="checkbox"/> Chilmark | <input checked="" type="checkbox"/> Edgartown |
| <input type="checkbox"/> Gosnold/Elizabeth Islands | <input checked="" type="checkbox"/> Chappaquiddick |
| <input type="checkbox"/> West Tisbury | <input checked="" type="checkbox"/> I do not live on the Vineyard |
| <input type="checkbox"/> Tisbury/Vineyard Haven | |

2. Do you live or work on the Vineyard? (Pick only one)

- Yes, I live on Martha’s Vineyard
- Yes, I work on Martha’s Vineyard
- Yes, I live AND work on Martha’s Vineyard
- No, I do not live OR work on Martha’s Vineyard (Skip to question 4)

3. If you live on the Vineyard, please tell us about your residency (Pick the ONE that best describes you).

- I am a year-round resident
- I am a part-time resident
- I am a summer resident
- I am a seasonal worker

4. Which of these groups best represents your race? (Please check all that apply.)

- American Indian or Alaska Native Native Hawaiian or Other Pacific Islander
- Asian White
- Black or African American Other: _____
- Prefer not to answer

5. Which of these bests represents your ethnicity, ancestry, or heritage? (Please check all that apply.)

You may provide more detail in the space provided if you wish.

| | |
|--------------------------|---|
| <input type="checkbox"/> | American Indian or Alaskan Native |
| <input type="checkbox"/> | Asian |
| <input type="checkbox"/> | Black or African American |
| <input type="checkbox"/> | Brazilian |
| <input type="checkbox"/> | European |
| <input type="checkbox"/> | Hispanic, Latino or Spanish |
| <input type="checkbox"/> | Middle Eastern or North African |
| <input type="checkbox"/> | Native Hawaiian or Other Pacific Islander |

SECTION II. Community and Housing

6. What do you see as the strengths of the Vineyard? (Please check all that apply.)

- My community is close to medical services
- My community has good access to resources
- My community has people of many races and cultures
- People speak my language
- People accept others who are different than themselves
- People care about improving their community
- People are proud of their community
- People feel like they belong in this community
- People like to work together in this community
- People can deal with challenges in this community
- There are innovation and new ideas in my community
- None of the above

7. From the following list, what are the top 5 most important concerns in the Vineyard that affect your community's health the most? (Please check top 5.)

- | | | |
|--|--|--|
| <input type="checkbox"/> Access to healthcare or other services | <input type="checkbox"/> Elder/aging health issues (e.g., falls, dementia) | <input type="checkbox"/> Miscarriage |
| <input type="checkbox"/> Alcohol/drug abuse/addiction/overdose | <input type="checkbox"/> Employment/job opportunities | <input type="checkbox"/> Motor vehicle injuries/deaths |
| <input type="checkbox"/> Asthma | <input type="checkbox"/> Environment (e.g., air quality, traffic, noise, climate change) | <input type="checkbox"/> Obesity |
| <input type="checkbox"/> Autism | <input type="checkbox"/> Gambling | <input type="checkbox"/> Poor diet/inactivity |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Heart disease and stroke | <input type="checkbox"/> Poverty |
| <input type="checkbox"/> Child abuse and neglect | <input type="checkbox"/> High blood pressure | <input type="checkbox"/> Rape/sexual assault |
| <input type="checkbox"/> Community violence/crime | <input type="checkbox"/> HIV/AIDS | <input type="checkbox"/> Respiratory/lung disease |
| <input type="checkbox"/> Domestic violence | <input type="checkbox"/> Homelessness | <input type="checkbox"/> Smoking |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Housing quality or affordability | <input type="checkbox"/> Vaping |
| <input type="checkbox"/> Education (low graduation rates, poor quality of education, etc.) | <input type="checkbox"/> Hunger/food insecurity/malnutrition | <input type="checkbox"/> Sexually transmitted infections (STIs) (e.g., Chlamydia, HPV) |
| <input type="checkbox"/> Infant and child health (e.g., infant death, premature birth, developmental delays) | <input type="checkbox"/> Infectious diseases (Hepatitis, TB, etc.) | <input type="checkbox"/> Teenage pregnancy |
| | <input type="checkbox"/> Marijuana use under 18 years old | <input type="checkbox"/> Trauma |
| | <input type="checkbox"/> Mental health (anxiety, depression, etc.) | <input type="checkbox"/> Other: _____ |

8. What best describes your current living arrangement? (Please check one.)

- | | |
|--|--|
| <input type="checkbox"/> Living in a house/apartment that I own | <input checked="" type="checkbox"/> Living in my car, on the streets, or another place not meant for people to sleep or live |
| <input type="checkbox"/> Living in a house/apartment that I rent | <input checked="" type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Living in a room that I rent | |
| <input type="checkbox"/> Staying with friends | |
| <input type="checkbox"/> Staying with family | |
| <input type="checkbox"/> Living in a hotel or motel that the government pays for | |
| <input type="checkbox"/> Prefer not to answer/Don't know | |

9. Are you...? (Please check all that apply.)

- Part of a household that receives rental assistance, such as "Section 8" or any other rental assistance program
- Living in a place with a short-term lease that you must vacate in the summer
- Worried that in the next 2 months you may not have stable housing
- Sometimes a resident of the island's temporary evening shelter
- None of the above
- Prefer not to answer/Don't know

10. How safe from crime do you consider your neighborhood to be? Would you say....

- Extremely safe
- Safe
- Unsafe
- Extremely unsafe
- Prefer not to answer/Don't know

11. If you moved in the last 5 years, which was the MAIN reason for your most recent move? (Please check one.)

- | | |
|--|--|
| <input type="checkbox"/> Issues related to paying rent or mortgage | <input type="checkbox"/> You wanted a different size and/or nicer house |
| <input type="checkbox"/> Issues related to poor housing conditions | <input type="checkbox"/> You wanted a safer neighborhood |
| <input type="checkbox"/> (<i>renters</i>) Your landlord went into foreclosure | <input type="checkbox"/> A change in your family (e.g., new baby, new relationship, end of relationship) |
| <input type="checkbox"/> (<i>homeowners</i>) You went through a foreclosure | <input type="checkbox"/> Got own place to stay/wanted to have own place |
| <input type="checkbox"/> You were evicted/wanted to avoid an eviction | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Housing subsidy funding ran out/budget cuts | <input type="checkbox"/> Did not move |
| <input type="checkbox"/> Issues related to risk of domestic violence | <input type="checkbox"/> Prefer not to answer/Don't know |
| <input type="checkbox"/> You wanted to be closer to work/school/family | |
| <input type="checkbox"/> Seasonal housing turnover (10-month lease; had to vacate in the summer) | |

12. Please note if any of these issues were not a problem, a minor problem, or a serious problem for you in the last 12 months.

| | Not a problem | A minor problem | A serious problem | Not applicable/ Don't know |
|--|--------------------------|--------------------------|--------------------------|----------------------------|
| a. Feeling unsafe in your home during the day ? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Feeling unsafe in your home at night ? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Walking in the community during the day ? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Walking in the community at night ? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Feeling unsafe in public places in your neighborhood? (e.g., parks, playgrounds, bus stops) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Feeling unsafe while riding a bike in the community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

13. In the past 12 months, have any of the following kept you from meetings, work, or from getting things needed for daily living (other than medical appointments)? Please check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Availability of public transportation | <input checked="" type="checkbox"/> Limited street parking or traffic |
| <input type="checkbox"/> Cost of transportation | <input checked="" type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Clear and understandable transportation signs and directions | <input checked="" type="checkbox"/> None of the above |
| <input type="checkbox"/> Limited opportunities for safe bicycle riding (unprotected bicycle lanes, places to lock your bike) | |

14. How much do you agree or disagree with the following statements?

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Not applicable/ Don't know |
|---|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| a. I can recognize most of the people who live in my town. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. People in my neighborhood help each other out. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. My neighbors and I want the same thing for our neighborhood. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. I have a lot of influence over what my neighborhood is like. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. I expect to live in my neighborhood for a long time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

15. Are you currently....? (Please check all that apply.)

- | | |
|---|--|
| <input type="checkbox"/> Employed for wages | <input type="checkbox"/> Unable to work |
| <input type="checkbox"/> Self-employed | <input type="checkbox"/> A seasonal worker |
| <input type="checkbox"/> Out of work for 1 year or more | <input type="checkbox"/> Employed full-time (40 hours or more) |
| <input type="checkbox"/> Out of work for less than 1 year | <input type="checkbox"/> Employed part-time (under 40 hours) |
| <input type="checkbox"/> A homemaker | <input type="checkbox"/> Working more than one job for pay |
| <input type="checkbox"/> A student | <input type="checkbox"/> Prefer not to answer |
| <input type="checkbox"/> Retired | |

16. What is your annual household income from all sources (e.g., income earned, alimony received, etc.)?

- | | |
|---|--|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$75,000 to \$99,999 |
| <input type="checkbox"/> \$10,000 to \$14,999 | <input type="checkbox"/> \$100,000 to \$149,999 |
| <input type="checkbox"/> \$15,000 to \$24,999 | <input type="checkbox"/> \$150,000 to \$199,999 |
| <input type="checkbox"/> \$25,000 to \$34,999 | <input type="checkbox"/> \$200,000 or more |
| <input type="checkbox"/> \$35,000 to \$49,999 | <input type="checkbox"/> Prefer not to answer/Don't know |
| <input type="checkbox"/> \$50,000 to \$74,999 | |

17. In the last 12 months, have you received assistance from an organization or program to help you with any of the following? (Please check all that apply.)

- | | | |
|--|---|--|
| <input type="checkbox"/> Transportation | <input type="checkbox"/> Childcare | <input type="checkbox"/> Legal Issues |
| <input type="checkbox"/> Utility Bills | <input type="checkbox"/> Housing | <input type="checkbox"/> Have not received assistance/ |
| <input type="checkbox"/> Education | <input type="checkbox"/> Job search or training | <input type="checkbox"/> Not applicable |
| <input checked="" type="checkbox"/> Food | <input type="checkbox"/> Care for elder or disabled | <input type="checkbox"/> Prefer not to answer/Don't know |
| <input type="checkbox"/> Medications | <input type="checkbox"/> Translation/interpretation | <input type="checkbox"/> Immigration issues |

18. Do you have trouble...?

| | Yes | No | Don't know Prefer not to answer/ |
|----------------------------------|--------------------------|--------------------------|----------------------------------|
| a. Paying your rent/mortgage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Paying your monthly utilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Paying for transportation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Paying for medication | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Paying medical bills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Paying for child care | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Paying credit card bills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Buying groceries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Saving money | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

19. In the last 12 months, have you worried that your food would run out before you got money to buy more?

- Often true
- Sometimes true
- Never true
- Prefer not to answer/Don't know

SECTION IV. Health and Health Care**20. When you are sick or need advice about your health, to which of the following places do you usually go? (Please check all that apply.)**

- Island Health Care
- A doctor's office on the island
- Martha's Vineyard Hospital primary care department
- Martha's Vineyard Hospital emergency room
- Some other kind of place on the island
- A provider or health care facility on the mainland
- No usual place
- Prefer not to answer/Don't know

23. When was the last time you had a dental check-up?

- Within the past year
- 2 to 5 years ago
- 5 or more years ago
- Never
- Prefer not to answer/Don't know

21. Do you have one person you think of as your personal doctor or health care provider?

- Yes, only one
- More than one
- No
- Prefer not to answer/Don't know

22. Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?

- Yes
- No
- Prefer not to answer/Don't know

24. Was there a time in the past 12 months when you needed to see a dentist but could not because of the cost?

- Yes
- No
- Prefer not to answer/Don't know

25. Please indicate how much you agree or disagree with the following statements.

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Not applicable/ Don't know |
|---|----------------|----------------|-------------------|-------------------|----------------------------|
| a. I am satisfied with the health care system on the Vineyard (Think about: cost, availability, quality, options, etc.) | ? | ? | ? | ? | ? |
| b. I am satisfied with my health care provider | ? | ? | ? | ? | ? |
| c. I can access health care services easily | ? | ? | ? | ? | ? |

26. What type of health care coverage do you use to pay for most of your medical care? Is it coverage through... (Please check one.)

- | | |
|---|---|
| <input type="checkbox"/> Your employer or someone else's employer | <input type="checkbox"/> Commonwealth Care |
| <input type="checkbox"/> A plan that you buy on your own or someone else buys for you | <input type="checkbox"/> The military, CHAMPUS, TriCare or the VA [or CHAMP-VA] |
| <input type="checkbox"/> Medicare and/or Medicare and supplement | <input type="checkbox"/> The Indian Health Service |
| <input type="checkbox"/> Medicaid, MassHealth, CommonHealth or Mass Health HMOs through Neighborhood Health Plan, Fallon Community Health Plan, or Network Health | <input type="checkbox"/> Some other source _____ |
| | <input type="checkbox"/> None |
| | <input type="checkbox"/> Prefer not to answer/Don't know |

27. Which of the following helped you to access health insurance (check all that apply)?

- Vineyard Health Care Access
- A staff member at Island Health Care
- A staff member at Martha's Vineyard Hospital
- Other: _____
- None of the above
- Prefer not to answer/Don't know

**28. In the past 12 months, have any of the following transportation barriers kept you from medical appointments?
(Please check all that apply.)**

- Availability of public transportation
- Cost of transportation
- Clear and understandable transportation signs and directions
- Limited opportunities for safe bicycle riding (unprotected bicycle lanes, places to lock your bike)
- Limited street parking or traffic
- Other: _____
- None of the above

Think about the health care services you have needed over the past 2 years...

29. Have any of these factors made it harder for you to get the health care services you needed over the past 2 years? (Please check all that apply.)

- Lack of transportation
- I have no regular source of health care (primary care physician or clinic)
- Cost of care, including high deductibles, co-pays, etc.
- Lack of evening or weekend services
- Don't have health insurance that covers what I need (no insurance or problems with insurance)
- Lack of providers who accept my insurance
- Office not accepting new patients
- Don't know what types of services are available
- Unfriendly doctors, providers, or office staff
- Felt discriminated against
- Afraid to ask questions or talk to doctors/medical people
- Afraid if I take the time off to get care, I'll lose my job
- Long wait for an appointment
- Health information is not kept confidential
- Language problems/could not communicate with health provider or office staff
- Instruction/directions are not in my language
- None of the above

30. Have any of these factors made it easier for you to get the health care services you needed over the past two years?

(Please check all that apply.)

- Available public transportation to health care services
- I have a regular source of health care (primary care physician or clinic)
- Affordable care (low deductibles and co-pays)
- Extended or convenient service hours in health facilities
- Insurance covers what I need
- Providers take my insurance
- Office accepting new patients
- I know the types of services that are available
- Positive interactions with doctors, providers, or office staff
- Felt like I would not be discriminated against
- Felt comfortable asking questions or talking to doctors/medical people
- Able to take time off from my job to seek care
- Little/no wait time for an appointment
- Health information is kept confidential
- Providers or staff speak my language/understand my culture
- Instruction/directions are in my language
- None of the above

31. During the past 30 days, for about how many days did you feel worried, tense, or anxious?

- 0 days
- 1-3 days
- 4-9 days
- 10 days or more
- Prefer not to answer/Don't know

32. During the past 30 days, for about how many days have you felt sad, blue, or depressed?

- 0 days
- 1-3 days
- 4-9 days
- 10 days or more
- Prefer not to answer/Don't know

33. In general, how well do you feel you are coping with the day to day demands of raising children or caring for a family member?

- Very well
- Somewhat well
- Not very well
- Not well at all
- Prefer not to answer
- Not applicable, I do not have children or a family

NOTE: If you are not a parent/caregiver, then skip to question 35.

34. For parents of children of any age: Since your child was born, how often.... (If you have more than one child, please answer these questions for your oldest child.)

| Since your child was born, how often... | Never | Rarely | Some-what Often | Very Often | Don't know |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Has it been very hard to get by on your family's income – hard to cover the basics like food or housing? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Did your child ever live with a parent or guardian who got divorced or separated after your child was born? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Did your child ever live with a parent or guardian who died? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Did your child ever live with a parent or guardian who served time in jail or prison after your child was born? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Did your child ever see or hear any parents or adults in [his/her] home slap, hit, kick, punch, or beat each other up? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Did your child ever witness any violence in [his/her] neighborhood? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Did your child ever live with anyone who was mentally ill or suicidal, or severely depressed for more than a couple of weeks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Did your child ever live with anyone who had a problem with alcohol or drugs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Has your child ever been bullied online, at school or in the neighborhood? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

35. With regard to mental health services, which statement below is true for you over the last 12 months (pick only one)?

- I needed mental health services and/or treatment in the last 12 months, but could **not** access them
- I needed mental health services and/or treatment in the last 12 months and I was able to access them
- I did not need mental health services and/or treatment in the last 12 months
- Prefer not to answer/Don't know

36. With regard to services or treatment for substance use, which statement below is true for you over the last 12 months (pick only one)?

- I needed substance use services and/or treatment in the last 12 months, but could **not** access them
- I needed substance use services and/or treatment in the last 12 months and was able to access them
- I did not need substance use services and/or treatment in the last 12 months
- Prefer not to answer/Don't know

SECTION V. Civic Engagement and Environment

37. Please indicate how much you agree or disagree with the following statements.

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Not applicable/ Don't know |
|--|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| a. It is important to me to be involved in town decision-making. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. I feel that I can influence decisions made by town government. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. I know who my town selectmen are. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. I know how to contact my elected town representatives to express my opinions or concerns. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

38. If you are eligible to vote, which best describes how often you vote, since you became eligible? (Please check one.)

- Every election without exception
- Almost every election, may have missed one or two
- Some elections
- Rarely
- I don't vote in elections
- I am not eligible to vote
- Prefer not to answer/Don't know

39. Think about where you and your household live, work, and/or go to school. Please tell us where you have any of the following environmental health concerns. (Please check all that apply.)

| | Home | Work | School | Not applicable/ Don't know |
|---|--------------------------|--------------------------|--------------------------|-------------------------------|
| a. Tobacco smoke | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Mold/mildew or water leaks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Inadequate heating and/or cooling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Bug and/or rodent infestation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Lead in paint, lead or other contaminants in drinking water | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Poor indoor air quality, like allergy triggers (e.g., dust) and/or chemical smells from carpet, cleaners, and/or furniture | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. No or not working smoke detectors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Outdoor noise pollution from cars, trucks, and/or buses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Outdoor air pollution from cars, trucks, and/or buses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Dangerous traffic | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Industry, toxic waste, pesticides, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Airport or airplane noise or vibrations | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Severe weather/storms | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Extreme outdoor heat or cold | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Neighborhood flooding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION VI. Demographics

40. Are you the parent or caregiver of a child under the age of 18?

- Yes (please answer question 41)
- No (please skip to question 42)
- Prefer not to answer/Don't know (please skip to question 42)

41. If you are the parent or caregiver for a child under 18, please indicate the age(s) of the child(ren) you care for. (Please check all that apply.)

- 0-3 years
- 4-5 years
- 6-10 years
- 11-14 years
- 15-17 years

42. What is your current sex or gender identity?

- Male
- Female
- Transgender male
- Transgender female
- Genderqueer, (neither exclusively male or female)
- Other/additional gender category: _____
- Prefer not to answer

43. What sex were you assigned at birth, meaning on your original birth certificate?

- Male
- Female
- Prefer not to answer

44. What is your sexual orientation?

- Straight/heterosexual
- Gay or lesbian
- Bisexual
- Prefer to self-describe: _____
- Prefer not to answer

45. What is your age?

- Under 18
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 years old or more
- Prefer not to answer

46. Were you born in the United States?

- Yes (please skip to question 48)
- No (please answer question 47)
- Prefer not to answer

47. If no, how long have you lived in this country?

- Less than 1 year
- 1 to less than 3 years
- 3 to less than 6 years
- 6 years or more, but not my whole life
- I have always lived in the U.S.
- Prefer not to answer

48. Which of the following best describes your marital status?

- Single (living in a household without a partner)
- Cohabitation (living together)
- Married
- Separated/Divorced
- Widowed
- Prefer not to answer

49. What is the primary language(s) spoken in your home? (Please check all that apply.)

- English Other: _____
 Portuguese/Cape Verdean Creole Prefer not to answer

50. What is the highest grade or level of school that you have completed?

- Less than high school or secondary school College graduate (4 to 5 years college ending in a bachelor's degree)
 Some high school or secondary school Some graduate school or a graduate degree
 High school or secondary school graduate or GED Prefer not to answer
 Some college or 2-year degree
 Certification program or trade school

51. Which of the following statements is true about your U.S. military service? (Please check only one)

- I am an active duty service member or in the reserves
 I am a veteran
 I have never served in the U.S. military/reserves
 Prefer not to answer

52. Which of the following statements describes your status with regard to disabilities? (Please check only one).

- I have a disability that affects one or more of the following: my hearing, vision, cognition, ambulation/movement, self-care, and/or independent living
 I do not have a disability that affects my hearing, vision, cognition, ambulation/movement, self-care, and/or independent living
 Prefer not to answer

53. Where do you find out what is happening on the Vineyard? (Please check all that apply.)

- Local newspaper (Martha's Vineyard Times, Vineyard Gazette)
 Local cable station (MVTV)
 Neighbors, family or friends
 Schools
 Vineyard-focused website, newsletter, or social media (like Facebook or Twitter)
 Organizational websites, newsletters or social media (like Facebook or Twitter)
 Religious meeting place
 Recreation site
 Other: _____

This concludes our survey. Thank you for your time. We greatly appreciate your participation.

Participants who complete this survey are able to enter to win a gift basket with \$200 in gift certificates to local stores. One name will be selected. If you would like to enter the raffle, please visit:
<https://www.surveymonkey.com/r/mvhraffle>

Your name and information will not be connected to the responses on your survey.

Appendix C - Martha's Vineyard Hospital – Key Informant Interview Guide

Interview goals: To understand the interviewees' perceptions regarding...

- Assets and needs of the community with which the interviewees/their organizations work
- Barriers and facilitators to health and wellness and how barriers can be addressed
- Opportunities to address community needs more effectively, specifically related to coordinating efforts and developing greater, sustainable, and systematic change

V. Background and introduction (5 minutes)

I'm working with Martha's Vineyard Hospital to conduct interviews with a range of community leaders to learn about key health needs on Martha's Vineyard. The hospital will use the information gained in these interviews, along with other data we are collecting, to develop a plan for addressing major health priorities on the island.

The comments that you share today will be anonymous. That is, I won't attribute anything you say directly to you. Your participation is voluntary. If you are uncomfortable answering a particular question, you may choose not to answer. If you have any questions at any point or want me to explain anything, let me know.

- A. I'd like to start with you telling me a bit about your organization.
- We are defining the term "community" broadly, either defined by geography or by some other shared identity). Which community or communities do you work in or with?
 - What are some of the greatest challenges your organization faces in conducting its work in/with the community?
 - Do you partner with other organizations to do your work? If so, which ones and for what purpose?

II. Community assets (20 minutes)

- A. How has the community changed over the last few years?
- B. What do you consider to be the community's strongest assets or strengths?
- C. What are some of the biggest issues or concerns you see affecting those living on the island?
- Which populations (e.g., by geography, age, race/ethnicity, immigration status, gender, income/education, etc.) do you see as being most affected by these issues and how are they affected in their daily lives?
- D. In general, what are the most pressing **health** concerns in the community and why?
- *If more than three:* Of the health concerns you mentioned, what would you say are the TOP THREE most pressing concerns?

- E. Name each of the three health issues individually and ask the following questions for each:
- How has _____ affected the community? Could you provide an example or two?
 - What are the greatest challenges or barriers people face in addressing _____? By challenges, I am thinking of things like economic hardship, stigma, negative attitudes about accessing services, lack of transportation, problems in the built environment, poor availability or access to resources/services, insufficient knowledge about services, social isolation, discrimination, inadequate insurance coverage.

III. Interviewee-specific questions about challenges and opportunities for improvement (15 minutes)

- A. One of the reasons we wanted to talk to you as part of the assessment is your expertise or experience with _____.
- What are some of the greatest health concerns this population faces?
 - What are the great challenges/barriers this population faces in addressing these health concerns?
 - What do you see as opportunities for addressing these challenges/barriers?

IV. Vision for the future (10 minutes)

- A. I would like you to think about the future of your community. When you think about the community three years from now, what would you like to see? What is your vision for the community overall?
- What are the next steps that are needed to help this vision become a reality?
 - How can we build on the community strengths we talked about to move toward a healthier Martha's Vineyard?
- B. As you think about your vision, what do you think needs to be in place support sustainable change?
- How do we move forward with lasting change across organizations and systems?
 - Where do you see yourself or your organization in this?

V. Closing (5-10 minutes)

Before we wrap up, is there anything else you want to add that we didn't discuss already?

As I said explained earlier, Martha's Vineyard Hospital is collecting a lot of information as part of its community health needs assessment, including from interviews like this. After we finish collecting all of the data the hospital needs, we will put together a report that describes what we learned. The report will be available on the hospital website. If you like, I can add your name to our email list so you will be notified when it is available. After the assessment, the hospital will develop a plan for addressing the top priorities we identify in the assessment. The information you shared today will be very valuable to that work. Thank you very much for your help and taking the time to talk with me today.

Appendix D – Organizations Represented by Key Informants

The 16 key informants who participated in the interviews represented the following organizations:

Martha's Vineyard Hospital
Island Health Care
Dukes County Commission – Commission on Disability and Commission for the Homeless
Martha's Vineyard Community Services
Island Wide Youth Collaborative
Island Counseling Center
National Alliance on Mental Illness – Cape and Island's Chapter
Healthy Aging Martha's Vineyard
Wampanoag Tribe of Gay Head (Aquinnah)
Martha's Vineyard Public Schools