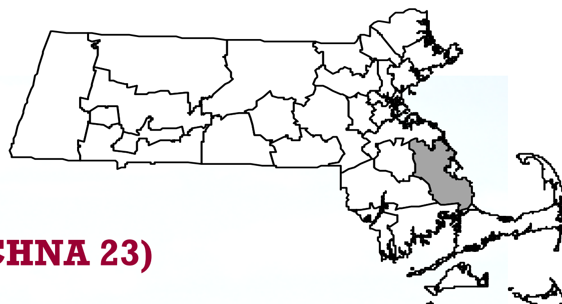
Community Health Needs Assessment for the South Shore Community Partners in Prevention (CHNA 23)

Prepared for:



South Shore
Community Partners in Prevention
Greater Plymouth
Community Health Network Area (CHNA 23)

Serving the Communities of:
Carver ■ Duxbury ■ Halifax ■ Hanover ■ Hanson ■ Kingston
Marshfield ■ Pembroke ■ Plymouth ■ Plympton ■ Rockland

Prepared by:

May 2011

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The completion of this assessment would not have been possible without the enthusiastic participation of community organizations and residents in each CHNA city and town. We would like to thank the residents who shared their thoughts on health in their communities and key informants who provided their time and expertise.

This report will assist the CHNA in determining where to direct the funding it receives as part of the Massachusetts Department of Public Health's Determination of Need program. The CHNA would like to thank its funders, without whom this assessment would not have been possible:
Jordan Hospital, Plymouth, MA
South Shore Hospital, Weymouth, MA

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Amy Mayberry, Carver Resident
Marion Oxenhorn, High Point Treatment Center

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Chair: Kathy Spear, High Point Treatment Center
Vice-Chair: Kerry Haskell, ACCESS program, Jordan Hospital
Treasurer: Carla Steen, South Shore Community Action Council
George Gorgizian, Plymouth County Correctional Facility
Peg Holda, South Shore Hospital
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South Shore Community Partners in Prevention Greater Plymouth Community Health Network Area (CHNA 23)

ROCKLAND
HANOVER
MARSHFIELD
HANSON
PEMBROKE
DUXBURY
HALIFAX
KINGSTON
PLYMPTON
CARVER
PLYMOUTH
N
0 1.25 2.5 5 7.5 Miles

Cities and Towns in CHNA 23

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Halifax Town Hall

Introduction

Community Health Network Areas (CHNAs) are coalitions of agencies in the public, non-profit, and private sectors working together to build healthier communities in Massachusetts through community-based prevention, planning, and health promotion. The Massachusetts Department of Public Health established the Community Health Network Area (CHNA) effort in 1992. Today this initiative involves all 351 towns and cities through 27 Community Health Networks. The South Shore Community Partners in Prevention (CHNA 23) serves the towns of Carver, Duxbury, Halifax, Hanover, Hanson, Kingston, Marshfield, Pembroke, Plymouth, Plympton, and Rockland. When the term "CHNA" is used in this report, it refers to CHNA 23 unless otherwise specified.

As part of the statewide effort to develop, implement, and integrate community projects that effectively utilize community resources to improve health status, the South Shore Community Partners in Prevention has maintained the following goals:

- Build collaborations focused on the Massachusetts Department of Public Health statewide public health priorities;
- Support the assessment and response to unmet community health and wellness needs;
- Promote the work of CHNA 23 within the region;
- Support and promote the work of individual CHNA members.

With these goals in mind, the Southeast Center for Healthy Communities conducted this community health assessment for the CHNA to ascertain community health needs, identify vulnerable community groups, and determine gaps in community health programming.

Wampatuck Pond, Hanson

Executive Summary

The Southeast Center for Healthy Communities conducted this Community Health Needs Assessment for the CHNA with the goal of identifying unmet community health needs, vulnerable populations, and gaps in existing community health services. This needs assessment used a five-step approach to address these areas: 1) conduct a **community input survey** of area residents to determine major health problems of concern, 2) analyze **existing data** to determine how health outcomes in CHNA towns differ from the state's overall numbers, 3) gather data from **CHNA member organizations** to determine the local impact of certain health problems, 4) review **existing programs and services** in the area to determine gaps, and 5) conduct **key informant interviews** to learn more about the communities and the issues that concern them the most.

About the Findings

Findings from each piece of the assessment contribute to the overall picture of area health needs in different ways. Examining results from the **community input surveys** will give the CHNA an indication of how community residents experience health care services, perceptions about the largest health problems, risk behaviors in these communities, and problems with health care access. Examining **available programs and services** in the area will allow the CHNA to determine gaps in local services. Examining results from the **archival data analysis,** which is the analysis of existing data, will allow the CHNA to determine whether hospitalization, emergency department utilization, or mortality in this region for conditions such as heart disease, injuries, asthma, diabetes, and substance use are comparable to state levels. It will also allow the CHNA to examine social determinants of health, such as poverty, housing, and community safety. Finally, examining results of the **key informant interviews** will give the CHNA the perspective of local experts on issues such as health care access, weight control, and health disparities. The results of this assessment will help the CHNA to determine how to invest the monies it receives from the Massachusetts Department of Public Health's Determination of Need program. As part of this program, the CHNA receives funding from Jordan Hospital in Plymouth and South Shore Hospital in Weymouth.

Archival Data Analysis

The archival data analysis was done by comparing the results of CHNA towns overall to the state using existing public health data. Highlights of the archival data analysis include:

Demographics:

- Approximately 9% of CHNA residents age 25 and older reported "less than a high school" education and 31% reported "some college" education.
- Approximately one in ten CHNA residents lives in a household with an income below 200% of the federal poverty level.
- Approximately 95% of CHNA residents are non-Hispanic White.

Housing:

- Over one in five housing units in Hanson, almost one in four housing units in Kingston, and approximately one in three housing units in Rockland was built before 1939.
- Over half of the homes in Rockland purchased between 2004 and 2008 have underwater mortgages.
- Carver was one of the top 20 communities in the state for distressed properties.

Health Care Access:

- People with a disability in the CHNA were more likely to report that they had ever been diagnosed with diabetes, more likely to report 15 or more days of poor physical health in the past month, less likely to report that they were satisfied or very satisfied with their lives, and more likely to report being obese than people in the CHNA without a disability.
- The top three languages for which interpretation services were provided at Jordan Hospital in 2007 were Portuguese, Spanish, and Laotian.
- Hanover, Carver, and Plympton have no public transportation, but Councils on Aging in those towns provide a van for older adults and the GATRA provides Dial-a-Ride in Carver. Pembroke has no public transportation other than a shuttle to the Hanson commuter rail station and a hospital bus service for older adults and people with disabilities, but the Council on Aging provides vans for older adults.

Safety:

- The age-adjusted rate of death from motor vehicle accidents in the CHNA was 11.4 per 100,000 residents from 2006-2008.
- The rate of assault-related emergency department visits among CHNA residents age 20-24 was 1395 per 100,000 residents in this age group from 2006-2008.
- Over 50% of weapons-related injuries in the CHNA where the location of the incident was known occurred inside a house or apartment.

Substance Use and Behavioral Health:

- In the CHNA, the rate of emergency department visits for mental disorders among residents age 15-19 was 3,313 per 100,000 residents in this age group; among CHNA residents age 20-24, it was 3,972 per 100,000.
- According to the Plymouth Public Schools Communities that Care survey from 2010, *"Plymouth Public Schools students reported higher average levels of marijuana, alcohol, cigarette use, smokeless tobacco use and binge drinking* [in the past 30 days] *than their national counterparts."*

- In 2007, the rate of admissions for substance abuse to facilities funded by the Bureau of Substance Abuse Services among CHNA towns was highest in Plymouth and Plympton.

Maternal and Child Health:

- A lower percentage of non-Hispanic Black women, Hispanic women, and other non-Hispanic women in the CHNA received adequate prenatal care than non-Hispanic White women in the CHNA from 2006-2008.
- From 2006-2008, approximately 9% of CHNA women who gave birth reported smoking during pregnancy.
- In this CHNA, only the communities of Duxbury and Pembroke have water fluoridation, which has important implications for oral health.

Risk Behaviors and Health Screening:

- Approximately 35% of CHNA residents age 18 and older reported that they were former smokers.
- Approximately one in five adults in Plymouth and Rockland are current smokers.
- Almost one-quarter of children in grades 1, 4, 7, and 10 in Marshfield and over one-third of children in the same grades in Plymouth is overweight or obese.

Chronic Illnesses:

- Black non-Hispanic CHNA residents of all ages had significantly higher rates of emergency department visits for asthma from 2004-2008 than White non-Hispanic CHNA residents. The same disparity exists for Black non-Hispanic children age 0-9 during the same time period.
- Women in the CHNA had an incidence of lung cancer that was 73.4 per 100,000 from 2003-2007, and the incidence of melanoma/skin cancer in the same time period among women in the CHNA was 24.7 per 100,000.
- Men in the CHNA had an incidence of prostate cancer that was 202.6 per 100,000 from 2003-2007, and the incidence of melanoma/skin cancer in the same time period among men in the CHNA was 45.4 per 100,000.
- As of December 31, 2009, there were 131 people living with HIV/AIDS in the CHNA.

Older Adults:

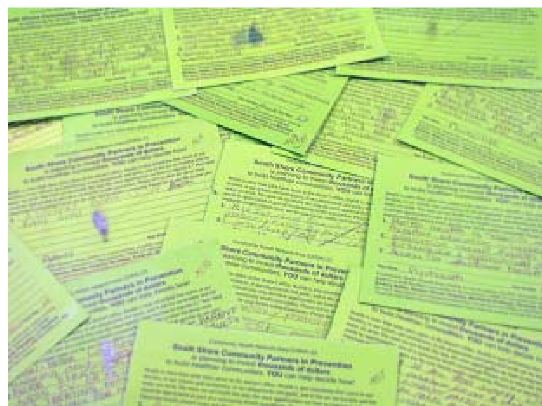
- Adults age 65 and older in the CHNA had a rate of emergency department visits for all injuries that was 9,610 per 100,000 from 2006-2008, and the rate of emergency department visits for falls in this age group was 4,979 per 100,000.

- Adults age 65 and older in the CHNA had a rate of hospitalization for all circulatory system diseases that was 11,064 per 100,000, and the rate of hospitalization for major cardiovascular disease was 10,525 per 100,000.

Community Input Surveys

In addition to statistics, CHNA members were also interested in perceived health concerns of community members. A Community Assessment Subcommittee was formed to discuss ways to collect this feedback from community members. The subcommittee administered a community input survey to solicit the top health concerns of residents of CHNA towns. 318 responses were received to the survey, which comprised 900 comments relating to health issues of concern. The breakdown of the comments is as follows:

- **19%** of comments focused on access to and affordability of health care and health insurance, with **31%** of these comments addressing lack of affordability of health insurance, copayments, dental care, ophthalmology, medications, or the need for assistance for people who are just above the poverty line and need help paying for necessities;
- **13%** of comments were related to health of children and adolescents;
- **12%** of comments were related to chronic illnesses and risk factors;
- **10%** of comments were related to environmental health issues;
- **9%** of comments were related to physical activity;
- **8%** of comments were related to healthy eating and nutrition;
- **7%** of comments were related to behavioral health and substance use;
- **5%** of comments were related to obesity or weight;
- **2%** of comments were related to health of older adults;
- **2%** of comments were related to safety;
- **12%** of comments were related to other health issues.


Returned postcards

Key Informant Interviews

In order to obtain more detailed information about health concerns identified by CHNA residents, the CHNA steering committee identified key informants to interview about health concerns in those communities. Informants were selected based on their relevance to major subject areas identified through the community input survey. Subject areas for the key informant interviews included child/adolescent health, health care access, health disparities, health of older adults, disabilities, HIV/AIDS, environmental health, public safety, and behavioral health and substance use. 15 total key informant interviews were conducted. Due to confidentiality constraints, individual key informants are not identified in this report. Concerns highlighted by key informants may be found at the end of each section of the report. In addition, key informants identified aspects of the Plymouth area that help people stay healthy, hinder people in staying healthy, and named additional resources they would like to see in the Plymouth area. These lists may be found on page 63.

Community Assets, Programs, and Services

As part of the assessment, CHNA members also wished to identify assets in their communities. A partial list of programs and services gleaned from local resource guides and community members may be found on page 67.

Methodology

The initial focus areas of the assessment were determined through consulting with the steering committee and the CHNA general membership. This was done following a data presentation of CHNA-level indicators compiled by the SCHC to the general membership of the CHNA and a discussion of social determinants of health. The CHNA general membership then indicated where they wanted to focus data-gathering efforts. The following data areas of interest emerged:

- Playground safety in childcare environments;
- Health care access among people with limited English proficiency;
- Issues with access to healthy foods;
- Substance abuse;
- Access to mental health care;
- Child abuse and neglect;
- Domestic violence;
- Health care access among people with developmental or mental disabilities.

In addition to statistics, CHNA members were also interested in perceived health concerns among community members. The community health assessment thus consisted of a multi-pronged effort including:

- Analysis of existing statistical data;
- Administration of a community input survey among residents of CHNA towns;
- Data collected from CHNA member organizations;
- Key informant interviews with local experts in health areas of concern identified by residents;
- An analysis of existing health care services in the area and potential areas of need for additional services.

The results of this assessment will help the CHNA to determine how to invest the monies it receives from the Massachusetts Department of Public Health's Determination of Need program. As part of the Determination of Need program, the CHNA receives funding from Jordan Hospital in Plymouth and South Shore Hospital in Weymouth.

Analysis of Existing Statistical Data

Existing statistical data was taken from federal, state, and local sources. Federal and state data sources included the **U.S. Census Bureau** for population, demographic, and socioeconomic characteristics for each town; the Massachusetts Department of Public Health's Community Health Information Profile (**MassCHIP**) for behavioral health data, birth data, mortality data, hospitalization data, and emergency department data; and the Massachusetts Behavioral Risk Factor Surveillance System (**BRFSS**) for self-reported risk behavior and health screening data. More detailed information about each data source can be found in Appendix A.

The following organizations and people were instrumental in gathering additional local data of interest: Sandra Blatchford of the Plymouth County District Attorney's Office provided domestic violence and crime statistics; Dennis Carman and Joyce Tavon of the Plymouth County United Way provided statistics regarding homelessness; MaryAnn Marshall of the Department of Transitional Assistance provided statistics on Supplemental Nutrition Assistance Program (SNAP) utilization; and Kathy Rodriguez of the Massachusetts Family Literacy Consortium provided statistics regarding school completion and literacy.

Data was collected from CHNA member organizations that were awarded CHNA mini-grants for this purpose. The following data was collected by member organizations for this assessment:

- Availability of alternate day care for a child who is sick: Karen Fabrizio, Kids Kastle/South Shore Women's Resource Center;
- Playground safety: Karen Fabrizio, Kids Kastle/South Shore Women's Resource Center;
- Transportation issues for individuals with chronic illnesses: Mary Gwynn, Plymouth AIDS Support Services, a program of Health Imperatives;
- Behavioral health and substance use: Marion Oxenhorn, High Point Treatment Center;
- Domestic violence: Kathy Spear, South Shore Women's Resource Center.

For the archival data analysis, data from the CHNA was compared to state level data to determine statistically significant differences. When describing the data, the terms **"higher than"** or **"lower than"** were used only when the rate of a given health outcome in the CHNA or city was significantly different from the state. When available, three years of data were analyzed together to provide more stable estimates than using one year of data alone. **Statistical significance** means that the difference between two groups is most likely not due to random chance. Statistical significance was determined by comparing the CHNA rate to the state rate using 95% confidence intervals. For additional common statistical definitions used in this report, please see Appendix B.

Community Input Survey

In addition to statistics, CHNA members were also interested in perceived health concerns among community members. A Community Assessment Subcommittee was formed to discuss ways to collect this feedback from community members. A list of community assessment subcommittee members can be found in Appendix C. This subcommittee met approximately once per month to discuss assessment-related issues.

To solicit community feedback, the CHNA assessment subcommittee released a community input survey. Community residents had two options for completing the survey: printed postcards or online. A copy of the postcard may be found in Appendix D. Postcards were distributed in CHNA communities in such places including, but not limited to: food pantries, physicians' offices, town halls, and human service agencies. Respondents were instructed to drop the completed postcard in the mail. Postage was prepaid by South Shore Hospital. Online survey respondents submitted their responses on the website surveymonkey.com. The survey included a

prompt to stimulate thought about social determinants of health. CHNA residents were asked to identify the three top health concerns in their communities. A total of 180 postcards were returned via mail out of approximately 8,000 postcards distributed, and there were 138 total responses to the online version of the survey. The distributions of towns from which the responses were received, gender of respondents, and ages of respondents may be found in Appendix D.

Key Informant Interviews

In order to obtain more detailed information about the top health concerns identified by community members during the community input survey, the CHNA steering committee identified key informants to interview about these health concerns in the CHNA. Informants were selected based on their relevance to major subject areas identified through the community input survey. Due to confidentiality constraints, individual key informants are not identified in this report. Subject areas for the key informant interviews included child/adolescent health, health care access, health disparities, health of older adults, disabilities, HIV/AIDS, environmental health, public safety, and behavioral health and substance use. 15 key informant interviews were conducted. The same questions were asked of all key informants, and the same interviewer conducted all interviews. Key informant interviews were conducted from March through May, 2011. Selected findings from the key informant interviews may be found on page 63 and at the end of each section of the report. Questions asked to key informants may be found in Appendix E.

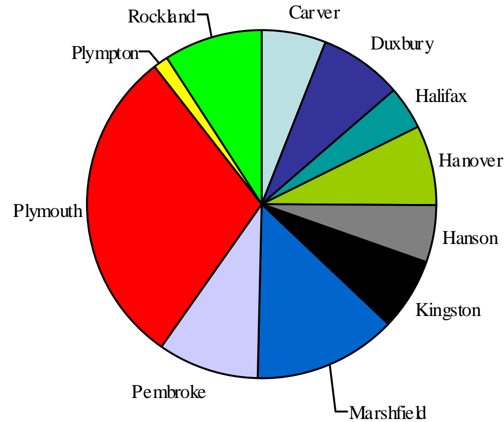
Interpreting the results of qualitative data, whether from key informants or from survey responses, should be done with caution, as several limitations exist:

- The health concerns identified by survey respondents and by key informants are perceptions from individual people and should not be generalized to represent the opinions of the community or of providers as a whole.
- Not all respondents to the community input survey were residents of CHNA towns. These participants were not excluded from the analysis due to the fact that these respondents may receive services in CHNA towns, and the assessment subcommittee valued the input of these respondents. Thus, some information obtained from individual respondents may not necessarily relate to CHNA communities.
- The surveys were not available in languages other than English and key informant interviews were all conducted in English; therefore, results from these surveys and interviews may not fully represent the needs of people who speak languages other than English.
- Key informants are not identified in this report due to confidentiality concerns. However, these key informants may work with specific subsets of the population, and thus health concerns of other populations may be missing from their observations.
- The oldest survey respondent was 78 and the youngest was 18; caution should be exercised when attempting to discern health care needs for people whose age falls outside of this range.

Section 1: Demographics

The CHNA is home to almost 200,000 people, with approximately 1 in 4 CHNA residents living in the town of Plymouth. Museums including the Pilgrim Hall Museum and Plimoth Plantation, along with landmarks and events such as the National Day of Mourning on Thanksgiving every year, note the area's historic significance. The CHNA has a different race/ethnicity composition than that of the state, with considerably less racial and ethnic diversity (see table 1.1). Figure 1.1 shows the distribution of the total population across all towns in the CHNA. Detailed demographics for each CHNA town are available in Appendix F. Additionally, according to American Community Survey estimates, the percentage of CHNA residents born outside the United States ranges from a low of 1.3% in Halifax to a high of 9.1% in Rockland, compared to 14% of people in Massachusetts overall. Approximately 3% of Carver residents and 13% of Rockland residents speak a language other than English in the home.

Figure 1.1: Population Distribution of Towns in CHNA 23, Percentages, 2010

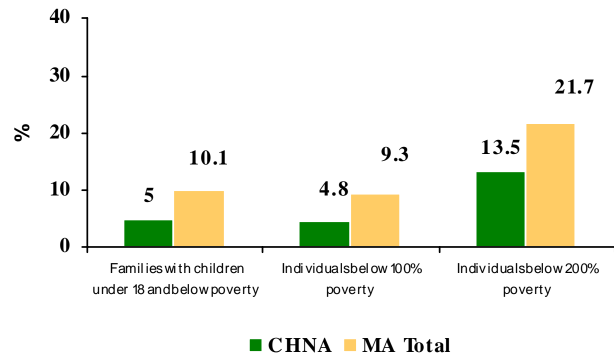


Data source: US Census, 2010

Table 1.1: Race/Ethnicity Composition, CHNA and Massachusetts Overall		
Category	**CHNA (%)**	**State (%)**
One race		
White	95.4	80.4
Black or African-American	1.3	6.6
American Indian, Alaska Native, Native Hawaiian or Other Pacific Islander	0.2	0.3
Asian	0.9	5.3
Some Other Race	0.9	4.7
Two or More Races	1.4	2.6
Hispanic/Latino (any race)	1.4	9.6
Data source: U.S. Census 2010		

The CHNA overall has fewer people than the state total who are living below the poverty level (see figure 1.2.) In 2000, over one in ten individuals living in the CHNA reported that their family income was below 200% of the federal poverty level. To meet the definition of an income below 200% of the poverty level in the year 2000, a family of four had to have a total household income below $34,100. In 2009, that household income had to below $44,100 for a family of four to qualify.

Figure 1.2 Demographics: Percentage of Families/Individuals Below The Poverty Level, CHNA and state, 2000



Data source: MassCHIP, Census 2000 dataset

Many families in the CHNA access emergency services:

- This CHNA contains three towns, Halifax, Plympton, and Rockland, which are deemed "high-risk" towns by the Women, Infants, and Children (WIC) program.[i] WIC provides nutrition assistance and health referrals to low-income pregnant, breastfeeding, and non-breastfeeding postpartum women and children under age five found to be at nutritional risk.
- In 2009, the CHNA had 603 recipients of Temporary Aid to Families of Dependent Children, which is 1.2% of the MA total recipients.
- In 2009, many residents of the CHNA received Supplemental Nutrition Assistance Program (SNAP) benefits, which is government aid formerly known as the Food Stamps Program. The numbers ranged from 17 per 1,000 residents in Duxbury to 77 per 1,000 residents in Rockland.

Levels of educational achievement slightly differ among CHNA residents and the state overall, with fewer CHNA residents reporting "less than high school" education and more reporting "some college" education than the state overall (see table 1.2.) Table 1.3 contains the percentage of children in each public school district who are eligible for free or reduced-price lunch.

"Holy Ghost Festa Honors Portuguese Heritage"
Kathryn Koch, GateHouse News Service, July 16, 2010

Table 1.2: Educational Achievement for People Age 25 and Older in the CHNA

	CHNA	State
Education		
Less than high school	8.7	15.2
High school graduate	30.3	27.3
Some college	31.3	24.3
College graduate plus	29.8	33.2

Data source: MA Dept of Public Health and U.S. Census 2000

Key Informant Perceptions

One key informant estimated that approximately 97% of the interpretation services provided in the area are in Portuguese, with the next largest number of interpretation services provided in Spanish. Several key informants agreed that the majority of Portuguese-speakers in the area are from Brazil, with an additional few from Portugal or the Azores

.

What the Community is Saying …
"How do you eat on $400 a month? That's like $100 a week. And you gotta pay rent out of that. Travel out of that. Groceries out of that. So it means food becomes a major issue…if you buy eight particular foods that are cheap, but at the same time, not healthy."
--Key informant

Table 1.3: Eligibility for Free or Reduced-Price Lunch, by Public School District, 2010-2011 School Year	
Public School District	**Percent Eligible for Free or Reduced-Price Lunch**
Carver	19.5
Duxbury	3.2
Halifax	11.3
Hanover	5.7
Whitman-Hanson	17.3
Kingston	13.1
Marshfield	12.5
Pembroke	14.4
Plymouth	26.6
Plympton	13.0
Rockland	35.9
Silver Lake Regional (Halifax, Kingston, Plympton)	12.2

Powder Point Bridge, Duxbury

Green Street, Kingston

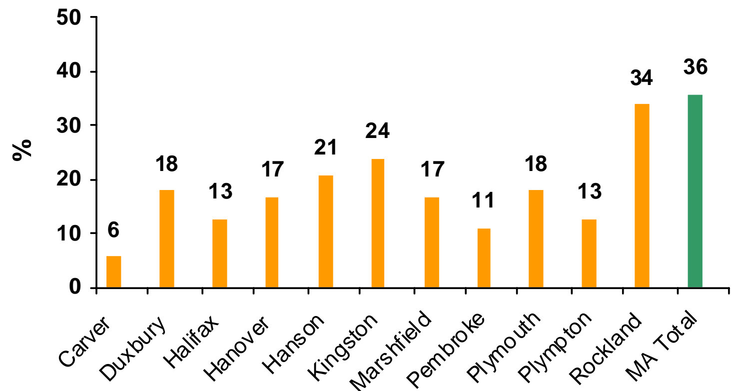
By the numbers:

- *Levels of educational achievement slightly differ among CHNA residents and the state overall, with fewer CHNA residents reporting "less than high school" education and more reporting "some college" education than the state overall.*
- *Approximately one in ten CHNA residents lives in a household with an income below 200% of the federal poverty level compared to one in five people in the state overall.*
- *Approximately 3% of Carver residents and 13% of Rockland residents speak a language other than English in the home.*

Cranberry bog, Kingston

Section 2: Housing

According to the most recent available data from the U.S. Census Bureau, the percentage of renters in CHNA towns was the lowest in Carver and Plympton (6%) and the highest in Rockland (29%) compared to the Massachusetts state total of 35%. Much of the housing in the CHNA is older housing (see figure 2.1). Older homes may be associated with elevated lead levels in children if the housing is not properly maintained or the lead is not properly abated.[ii]



Data source: American Community Survey, 2005-2009

Two CHNA towns, Carver and Rockland, are facing foreclosure-related challenges. According to the Massachusetts Housing Partnership:

- Carver ranked 19th in the state for number of distressed properties in Massachusetts in 2009 and 20th as of February 2011
- Carver was 14th on the list for highest foreclosure petition activity in the state in 2007 with 22.4 housing units affected per 1000, but was not on the list in 2008.
- In addition, Rockland (02370) was the 2nd highest zip code for homes that were purchased between 2004 and 2008 and now have negative equity. 57.4% of homes purchased in this time period now have "underwater mortgages," or mortgages where the homeowner owes more for the home than it is worth.

"Weymouth, Carver saw big increases in foreclosure in 2010"
Christian Schiavone, The Patriot Ledger, January 29, 2011

Homelessness is also present in the CHNA, and the CHNA contains many resources for homeless individuals and families. Seven churches rotate emergency shelters in the colder months and the Plymouth Task Force for the Homeless leases a sober house in North Plymouth.

> ***What the Community is Saying …***
> *"You see a lot of people out of work, tons of foreclosures, tons of short-sales on houses…a lot of people upside down on their mortgages, struggling."*
> --Key informant

The United Way of Plymouth County conducts a "point-in-time" homelessness count in January of each year to assess the number of homeless individuals and families at that particular moment in time. According to the United Way, nearly all of the individuals counted are either in Brockton or from Brockton and only temporarily sheltered in a nearby town. Therefore, caution should be exercised when interpreting this county-level data in the context of the CHNA, which does not include the city of Brockton. The point-in-time count of the homeless population in Plymouth County on January 27, 2010 was as follows:

- 226 households with dependent children in emergency or transitional shelters (655 total people), which represents a 74% increase over 2005;
- 192 households without dependent children in shelters;
- 23 unsheltered individuals.

Boarded-up house, Plympton

Housing units in North Plymouth

By the numbers:

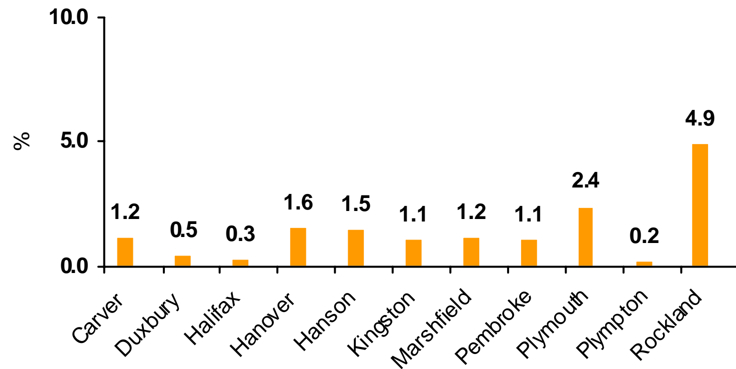
- *Over one in five housing units in Hanson, almost one in four housing units in Kingston, and approximately one in three housing units in Rockland was built before 1939.*
- *Over half of the homes in Rockland purchased between 2004 and 2008 have underwater mortgages.*
- *Carver was one of the top 20 communities in the state for distressed properties as of February 2011.*

Section 3: Health Care Access

Many factors affect a person's access to health care, including availability of medical providers, availability of a person's spoken language at a medical facility, or whether or not a person has health insurance.

Certain demographic factors may also impact a person's ability to access health care. For example, a person diagnosed with a disability may have trouble with physical access (such as transporting themselves to appointments), comprehension of health information they are given at such appointments, or both. According to Census data from 2000, approximately 16% of people age 5 and older in the CHNA had a disability[iii] compared to 19% in the state overall. According to the BRFSS, a statewide survey, in the CHNA, 24% of people age 18 and older reported that they had a disability [iv] compared to 21% in the state overall.

Figure 3.1: Percentage of People Age 5 and Older Who Speak English "Less Than Very Well"



Data source: American Community Survey, 2005-2009

What the Community is Saying …

"When you're talking about health care services, don't forget about [people with developmental disabilities]. *They get lost in the shuffle sometimes—people don't remember that* [they] *are complicated people and it's not easy for them to get the kind of services that they need."*

--Key informant

According to BRFSS data from 2005-2009, people with a disability age 18 and older in the CHNA were:

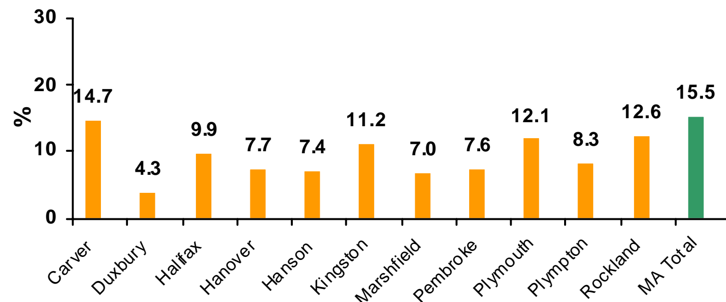
- More likely to report that they had ever been diagnosed with diabetes (16.3%) than people without a disability (4.5%);
- More likely to report 15 or more days of poor physical health in the past month (21.8%) than people without a disability (3.5%);
- Less likely to report that they were satisfied or very satisfied with their lives (85.8%) than people without a disability (97.8%);
- More likely to report being obese (34.3%) than people without a disability (14.9%).

Another factor that may influence health care access is speaking a language other than English. The three languages for which Jordan Hospital had the largest number of interpretation sessions in 2007 were Portuguese, Spanish, and Laotian. According to the American Community Survey,

approximately 5% of Rockland residents age five and older speak English "less than very well" (see figure 3.1).

Literacy may have an impact on a person's ability to read prescription bottles or written information given at appointments. While there is no exact measure of literacy, the Massachusetts Family Literacy Consortium uses two proxy measures: speaking English less than "very well" and high school non-completion. Figure 3.2 lists the percentage of people age 18 and older in each town in the CHNA who had not yet completed high school.

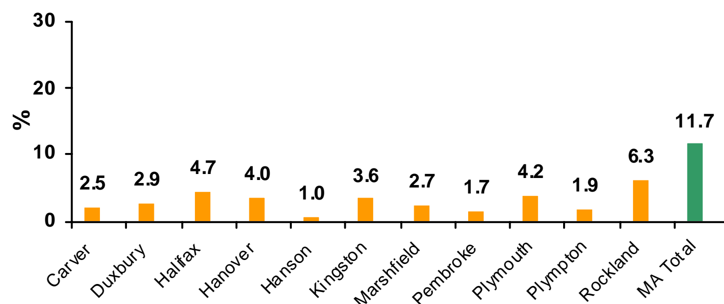
Figure 3.2 High School Non-Completers, 18 and Older



Data source: Massachusetts Family Literacy Consortium

Access to public transportation may also influence a person's ability to keep appointments or access healthy foods. Many key informants and respondents to the community input survey identified lack of public transportation as a barrier to health care access within the CHNA. The Greater Attleboro Taunton Regional Transit Authority (GATRA) provides public transportation in the form of buses to some of the CHNA towns. Hanover, Carver, and Plympton have no public transportation. Councils on Aging in those towns provide a van for older adults and the GATRA provides Dial-a-Ride in Carver. Pembroke has no public transportation other than a shuttle that runs to the Hanson commuter rail station. A bus provides transportation to hospitals in Boston and Weymouth through the GATRA, though the Council on Aging provides vans for older adults. Halifax, Hanson, Kingston, and Plymouth are all stops on the Kingston/Plymouth line of the MBTA commuter rail. The GATRA

Figure 3.3 Percentage of housing units with access to zero vehicles



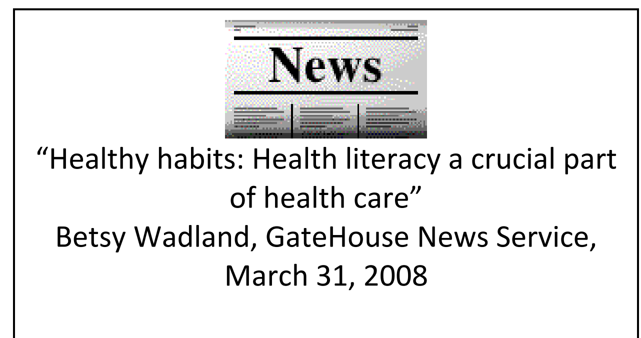
Data source: American Community Survey, 2005-2009

also provides a “hospital service” bus on certain days of the week that provides transportation for older adults and people with disabilities from Duxbury, Marshfield, Kingston, Pembroke, and North Plymouth to Boston hospitals and South Shore Hospital. The Plymouth and Brockton bus system provides buses from Rockland, Marshfield, Duxbury, Kingston, and Plymouth into Boston. Plymouth, Marshfield, Duxbury, and Kingston are serviced by the GATRA bus system, but key informants spoke of the many difficulties people had in accessing GATRA services. Information about how to access services is not readily available, and difficult to navigate for people who do not speak English. In addition to the lack of public transportation services available, some residents have no access to a personal transportation vehicle (see figure 3.3).

A survey conducted by Plymouth AIDS Support Services (PASS) of 57 HIV-positive clients of ACCESS, Father Bill's, Adult Family Care, High Point Treatment Center in Plymouth, Robin's Nest, and PASS revealed that transportation is an issue in obtaining access to appointments. 63% of respondents did not have a vehicle, and 40% had no valid driver's license. Of respondents who did not have a car, 53% indicated that they rely on others for transportation for medical appointments, and the transportation is unreliable. Transportation to medical appointments is vital to this population, as 73% of survey respondents indicated that they have medical appointments two or more times per month. Other findings from this survey included:

- 67% said lack of transportation prevents access to substance recovery or treatment programs;
- 62% said lack of transportation prevents them from participating in social or support groups;
- Approximately 50% of survey respondents indicated that they use public transportation at least on occasion, while others don't access it because of health issues;
- 10% have missed probation or parole appointments because of lack of transportation.

Access to health care was also of concern to respondents to the community input survey. Many of the comments on the survey concerned lack of affordability of health insurance, copayments, dental care, ophthalmology, medications, or the need for assistance for people who are just above the poverty line and need help paying for necessities.



“Healthy habits: Health literacy a crucial part of health care”
Betsy Wadland, GateHouse News Service, March 31, 2008

Multiple comments addressed:

- Lack of access to doctors, specialists (such as cardiologists) or dentists;
  - *“A lot of doctors aren't taking new patients, or are impossible to book! I often end up at walk-in clinics because I'm sick and my doctor can't fit me in.”*
- Lack of access to health information;
- Lack of access to primary care and dental services for MassHealth recipients;
- Lack of access to immunizations for children and adults;

- The need for a community health center;
- The need to increase access to transportation, particularly to and from medical appointments.

Key Informant Perceptions

Key informants identified several issues with access to health care among Portuguese-speaking Brazilians in the area. They stated that many Portuguese-speaking Brazilians have Health Safety Net insurance (formerly known as "free care,") and large numbers also have MassHealth. They also noted that many area physicians' offices are not accepting new patients with MassHealth, and the closest clinics where one may receive primary care if one has Health Safety Net insurance are located in Brockton or Mashpee. Key informants stated that self-paying for appointments and lab tests becomes extremely expensive without insurance, so many people wait until a medical situation is dire and then visit the emergency room.

In addition, there is only one provider in the CHNA area who speaks Portuguese according to these key informants, and area physicians' offices do not have medical interpreters, so many Portuguese-speaking Brazilians cannot find medical care available in the area in their language. Hence, many people use the emergency department at Jordan Hospital for primary care issues.

According to key informants, finding dental services for Portuguese-speaking Brazilians is also difficult. One key informant said that one dental clinic in Plymouth accepts children with MassHealth, and there is another dental clinic located in the Hanover Mall. Traveling to appointments then becomes an issue if one does not have access to a car, and there are no interpreter services that the key informant is aware of at these offices.

According to one key informant, health care access for adults with developmental disabilities may also be problematic. Dental providers who will take patients with developmental disabilities are hard to find, and people in the Plymouth area with developmental disabilities rely heavily on the Tufts dental provider in Taunton. One key informant spoke of years of cuts to the Tufts dental care system, indicating that dental services have become increasingly difficult to access for this population.

One key informant stated that another access issue for adults with developmental disabilities is finding primary care providers and specialists who are knowledgeable about their needs; therefore many of these individuals face obstacles when seeking out specialists or new providers. People with other disabilities may have challenges when providers may not be familiar with their needs: for example, how to get a wheelchair-bound person on an exam table, or need for equipment to draw blood. Finding additional providers who are familiar with the needs of individuals with developmental disabilities and other disabilities was noted as a need by this key informant.

Individual key informants interviewed for the assessment identified these additional obstacles to accessing care:

- Limited public transportation, and the public transportation that exists is confusing to use;

- Closest veterans' hospital is located in Brockton, presenting transportation issues for older and ill veterans;
- Among people with HIV, stigma associated with seeing physicians known in the community as "HIV doctors;"
- Health insurance is not affordable for many people, though they are required to have it;
- Health insurances may come with high copayments or deductibles, and thus some people put off surgery or screening procedures due to an inability to pay;
- Transportation to Boston for specialized care is expensive;
- Many dermatologists' offices have become day spas, and obtaining appointments with a dermatologist in a timely fashion has become difficult;
- One key informant noticed that more people have been calling ambulances for non-emergent health issues and is unsure why;
- Some older adults were unable to afford certain medications or obtain transportation to medical appointments;
- Lack of primary care providers in the area accepting new patients with MassHealth;
- Mental health services may not have immediate appointments available;
- Endocrinologists are hard to find in the area.

Dirt road, Halifax

Halifax commuter rail station

The age-adjusted rate[1] of overall utilization of emergency rooms was significantly lower in the CHNA (33,937 per 100,000) than in the state overall (36,554 per 100,000) from 2006-2008. The CHNA also had a significantly lower percentage of emergency room visits paid for with public funds, defined as Medicare, Medicaid, free care, Medicaid/Medicare managed care, or other public insurance (36.4%) than the state (46.3%) from 2006-2008.

[1] For an explanation of age-adjusted rates, please see Appendix B on page 73.

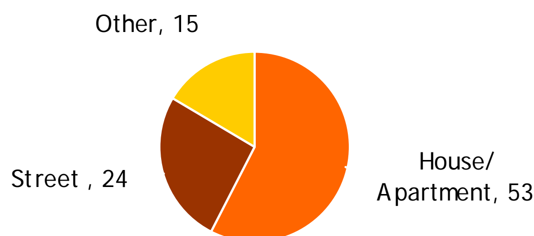
By the numbers:

- *People with a disability in the CHNA were more likely to report that they had ever been diagnosed with diabetes, more likely to report 15 or more days of poor physical health in the past month, less likely to report that they were satisfied or very satisfied with their lives, and more likely to report being obese than people without a disability.*
- *The top three languages for which interpretation services were provided at Jordan Hospital in 2007 were Portuguese, Spanish, and Laotian.*
- *Hanover, Carver, and Plympton have no public transportation, but Councils on Aging in those towns provide a van for older adults and the GATRA provides Dial-a-Ride in Carver. Pembroke has no public transportation other than a shuttle to the Hanson commuter rail station and a hospital bus service for older adults and people with disabilities, but the Council on Aging provides vans for older adults.*

Section 4: Safety

Domestic violence emerged from the community input survey as the main safety-related community health concern. This concern is backed by data; the majority of weapons-related injuries where the location of the incident was known occurred inside a house or apartment (see figure 4.1). The following domestic violence data were gathered from the Plymouth County District Attorney's Office. The definition of domestic violence includes incidents between intimate partners, relatives, and in-laws (following the Abuse Prevention Law.)

Figure 4.1: Weapons-Related Injury Cases by Where Injuries Occurred (Excluding Unknown), CHNA, 2007-2009



Note: numbers for "bar/club" and "park/recreation" were too small to report

Data source: MassCHIP Weapons-Related Injury Surveillance System Dataset

Domestic violence data were collected from the towns listed below. In June 2009, there were 30 incidents in the town of Plymouth. In 2008, there were:

- 91 incidents in Carver;
- 39 incidents in Duxbury;
- 26 incidents in Halifax;
- 81 incidents in Hanover;
- 35 incidents in Hanson;
- 46 incidents in Kingston;
- 120 incidents in Marshfield;
- 77 incidents in Pembroke;
- 8 incidents in Plympton;
- 287 incidents in Rockland.

> ***What the Community is Saying …***
> *"…there's the whole psychological part of* [being a] *battered* [woman]. *The isolation, the lack of friendships, (they're isolated so the person can keep control of them) so they* [are] *either anxiety-ridden or depressed"*
> *--Key informant*

South Shore Women's Resource Center (SSWRC), which is located in Plymouth, provides domestic violence services such as counseling, legal advocacy, community training and education, a 24-hour emergency hotline, and emergency shelter placement. The SSWRC provided data as part of this assessment, which can be found in Table 4.1.

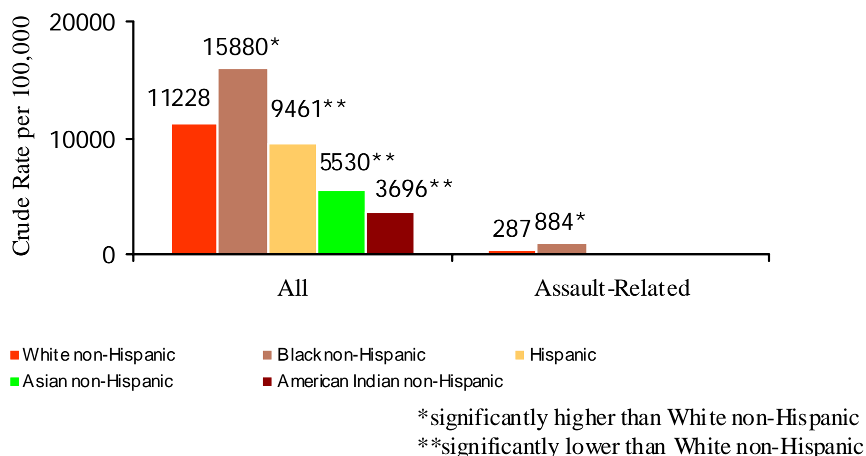
"Three violent domestic cases in two days in Plymouth"
The Patriot Ledger, October 29, 2010

Table 4.1: Services provided for CHNA residents by South Shore Women's Resource Center, 2009		
	Total calls received	Hours of counseling and advocacy services provided for adult women at SSWRC's main office and offiste locations
Carver	170	124
Duxbury	41	58
Halifax	50	129
Hanover	88	55
Hanson	22	No data
Kingston	76	43
Marshfield	179	58
Pembroke	66	101
Plymouth	519	804
Plympton	21	11
No data for the town of Rockland		

From 2006-2008, the CHNA had a crude rate of emergency department visits for assault-related injuries (302 per 100,000) that was significantly lower than the state rate (396 per 100,000). The rate of assault-related emergency department visits among residents age 20-24, however, was significantly higher in the CHNA (1,395 per 100,000) than the state total (1,190 per 100,000) during the same time period.

Rabies clinic, Halifax

Figure 4.2: ED visits for injuries, by race/ethnicity, CHNA, 2006-2008



Data source: MassCHIP Emergency Department Dataset

Major street without sidewalks, Kingston

When examining the data by race and ethnicity, some disparities emerge. Emergency department visits for assault-related injuries were significantly higher among non-Hispanic Black residents of the CHNA than among non-Hispanic White residents (see figure 4.2).

In 2009, the town of Plymouth had an assault-related gunshot or sharp instrument injury rate of 10.8 per 100,000 population, which was lower than the state total of 28.6 per 100,000.

In contrast, the age-adjusted rate of death from motor vehicle accidents was significantly higher in the CHNA (11.4 per 100,000) than the state (6.4 per 100,000) from 2006-2008.

According to the "Communities that Care" survey that was conducted in the Plymouth Public Schools in 2010, "Attacking Someone with Intent to Harm" was the second most prevalent antisocial behavior reported, as 14.9% of the students surveyed in grades 7 through 12 reported that they had attacked someone in the past year. The highest antisocial behavior was "Being Drunk or High At School In The Past Year," which was reported by 15.9% of respondents. Approximately 3% of students reported attempting to steal a vehicle, 4% reported carrying a handgun, and 1% reported taking a handgun to school.

Community safety was also of concern to community residents. Multiple comments from the community input survey identified:

- Domestic violence, including education for the courts and education for families;
- "Public safety" programs.

Key Informant Perceptions

One key informant stated that depression and anxiety were issues among women who had suffered from domestic violence. Substance use and alcohol use may also occur in this population. The key informant also stated that financial difficulties occurred among women in treatment for domestic violence; women who have escaped domestic violence situations may have difficulty paying for health insurance or copayments for mental health services and other medical care. These financial difficulties are sometimes the result of escaping an abusive situation. One key informant in Rockland noted that the police respond to numerous domestic violence calls per day.

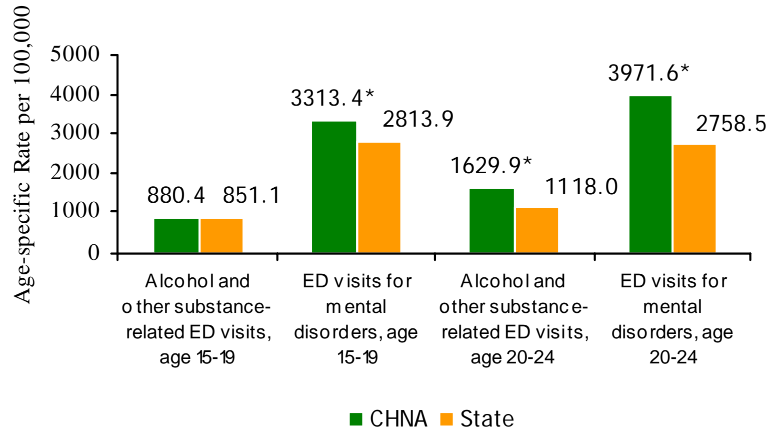
By the numbers:

- *The age-adjusted rate of death from motor vehicle accidents was significantly higher in the CHNA (11.4 per 100,000) than the state (6.4 per 100,000) from 2006-2008.*
- *The rate of assault-related emergency department visits among residents age 20-24 was significantly higher in the CHNA (1,395 per 100,000) than the state total (1,190 per 100,000) from 2006-2008.*
- *Over 50% of weapons-related injuries in the CHNA, where the location of the incident was known, occurred inside a house or apartment.*
- *Emergency department visits for assault-related injuries were significantly higher among non-Hispanic Black residents of the CHNA than among non-Hispanic White residents.*

Section 5: Substance Use and Behavioral Health

For the CHNA overall, the age-adjusted rate of alcohol and substance-related emergency department visits (513 per 100,000) was lower than the state (736 per 100,000) from 2006-2008. The rate of emergency department visits for mental disorders was also significantly lower among CHNA residents overall (1,604 per 100,000) than the state (1,820 per 100,000). For CHNA residents ages 15-19 and 20-24, however, the data shows a different story (see figure 5.1).

Figure 5.1: ED visits for substance use and behavioral health, 2006-2008

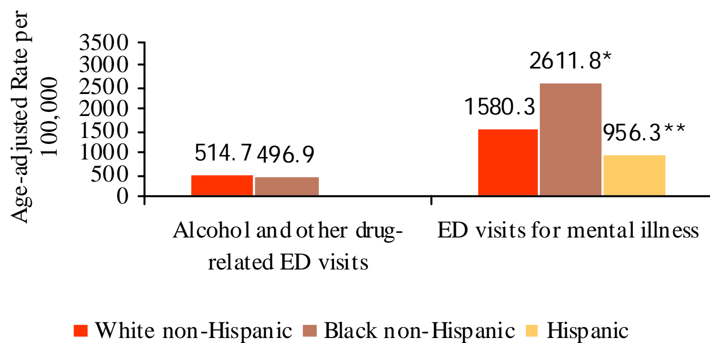


*significantly higher than state rate

Data source: MassCHIP Emergency Department dataset

From 2006 to 2008, the age-adjusted rate of opioid-related fatal overdoses in the CHNA (9 per 100,000) was approximately the same as the state rate (9 per 100,000). The age-adjusted emergency department visit rate for opioid-related poisoning in the CHNA (178 per 100,000) was lower than the state (195 per 100,000) during the same time period.

Figure 5.2: Substance use and behavioral health indicators by race/ethnicity in the CHNA, 2006-2008



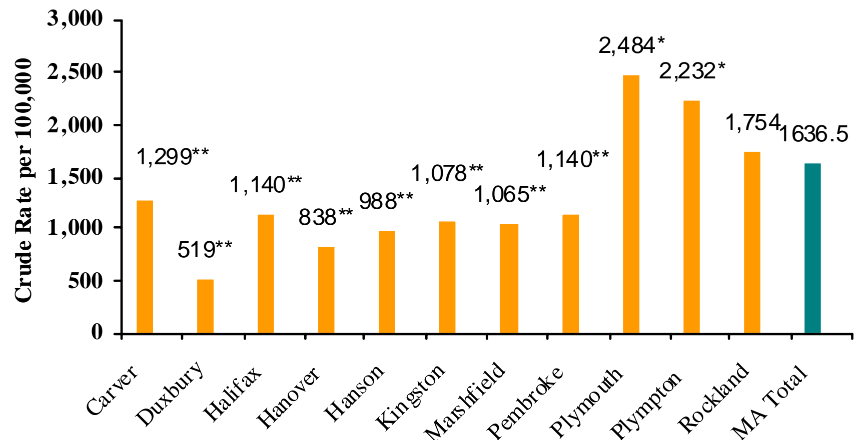
*significantly higher than White non-Hispanic
**significantly lower than White non-Hispanic

Data source: MassCHIP Emergency Department dataset

According to the BRFSS, a statewide survey, approximately the same percentage of CHNA residents reported 15 or more days of poor mental health in the past month (11%) as residents of the state overall (9%) from 2007 through 2009.

When examining substance use and behavioral health data by race/ethnicity, some differences emerge (see figure 5.2).

Substance use is an increasing problem. In 2007, the rate of admissions for all substances to facilities funded by the Bureau of Substance Abuse Services was significantly lower in the CHNA (1,521 per 100,000) than the state overall (1,637 per 100,000). Figure 5.3 compares the admission rate to BSAS-funded facilities for each town in the CHNA to the state rate.



Data source: MassCHIP Bureau of Substance Abuse Services Treatment Admission Dataset

*significantly higher than state rate
**significantly lower than state rate

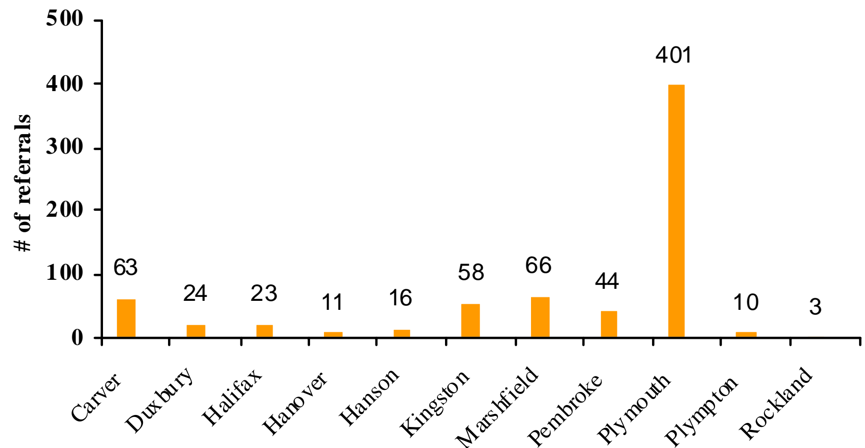
"Rockland woman arrested on OUI charges after allegedly parking in middle of the road"
Matt Stout, The Brockton Enterprise, March 25, 2011

What the Community is Saying …
"There are so many kids who are [engaging in] *underage drinking."*
--Key informant

The CHNA also had a lower rate of admission of individuals who had used a needle to administer drugs within the past year (361 per 100,000) than the state (504 per 100,000). The CHNA did, however, have a significantly higher rate of admission where alcohol was the primary substance (722 per 100,000) than the state (666 per 100,000) in 2007.

The only community-level data on substance use and mental health in adolescents made available for the purposes of this report came from the town of Plymouth. According to the 2010 Communities that Care survey, students in grades 7-12 in the Plymouth Public Schools reported the following:

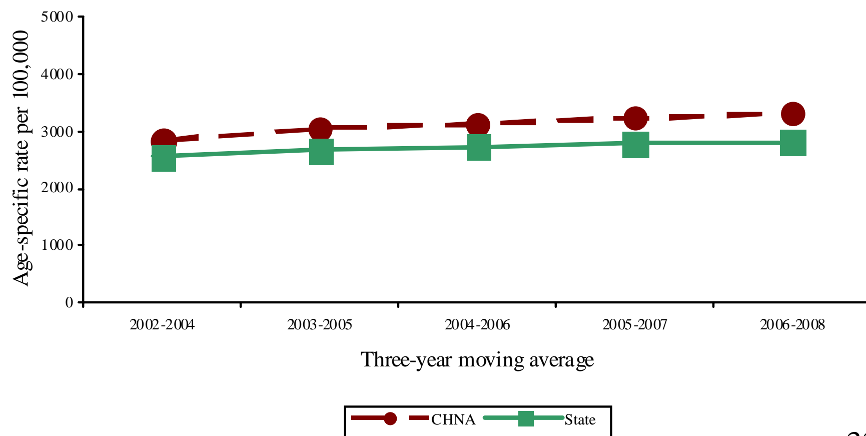
- 35% of students reported use of alcohol in the past 30 days;
- 26% of students reported use of marijuana in the past 30 days;
- 14% of students reported use of cigarettes in the past 30 days;
- 7% of students reported use of smokeless tobacco in the past 30 days.



Data source: High Point Treatment Center records provided by Marion Oxenhorn

According to survey administrators, *"Plymouth Public Schools students reported higher average levels of marijuana, alcohol, cigarette, and smokeless tobacco use and binge drinking [in the past 30 days] than their national counterparts."*[iv]

Emergency department visits for mental disorders among adolescents were higher in the CHNA than in the state overall, and have been increasing since 2002 (figure 5.5).



Substance use and behavioral health were also of concern to community residents. Multiple comments on the community input survey concerned:

- Depression, stress and stress-related health concerns as problems;
- Substance use as a health problem and substance abuse prevention as a health concern;
- Alcohol use;
- Emotional health as a health concern;
- The need for additional mental health services such as support groups, psychiatric services for children, outpatient mental health services capable of evaluation so people may avoid the emergency room; residential services and counseling;
- Attention deficit hyperactivity disorder (ADHD);
- Autism;
- Two participants cited maternal mental health and postpartum depression as concerns.

Sign for Pembroke community center

Key Informant Perceptions

Key informants identified many issues with substance use and behavioral health in the Plymouth area. Multiple key informants cited underage drinking and substance use as problematic. Substance use was noted as an issue not only in adolescents, but also in adults. One key informant noted that the police department had been picking up many syringes that were left on the ground in a particular town, and that many ambulance calls would be received for overdoses in a short period of time when a "bad batch" of heroin had been released into the community, though that has not happened in "awhile." The same key informant noted an increase in ambulance calls related to suicidal ideation and depression, and speculated that the increase has been related to the economic downturn.

Access to mental health care is also an issue in the Plymouth area. For Portuguese-speaking people, the issue may be *"taboo"* and people may be hesitant to discuss any issues regarding depression or anxiety. Key informants thought that outreach to this population for mental health issues would be an important service to provide. One key informant stated that, for the English-speaking population, mental health services may be difficult to obtain in a timely fashion; sometimes providers do not return calls to people seeking services for a couple of weeks.

By the numbers:

- *In the CHNA, there were significantly higher numbers of emergency department visits for mental disorders among residents age 15-19 and 20-24 than in residents in this age group in the state overall.*
- *According to the Plymouth Public Schools **"Communities that Care"** survey from 2010, 35% of students reported using alcohol and 26% of students reported using marijuana in the past 30 days.*
- *In 2007, the rate of admissions for substance abuse to facilities funded by the Bureau of Substance Abuse Services was highest in Plymouth and Plympton.*

Union Street, Rockland

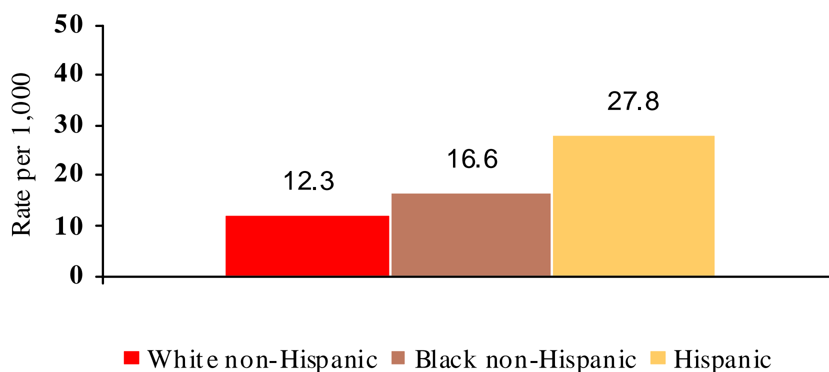
Section 6: Maternal and Child Health

The age-specific birth rate among women age 15-19 was lower in the CHNA (12.8 per 1,000) than the state overall (21.1 per 1,000). In order to obtain a number greater than 10 births for three race/ethnicity groups, the years 2003-2008 were aggregated (see figure 6.1).

What the Community is Saying …

"Definitely, there is obesity. And we see it because the kids are not out as much as they could or should be. There's not enough exercise for them. Even within schools now…everything is learn learn learn and test test test. [The students] *have working snacks sometimes."*

--Key informant



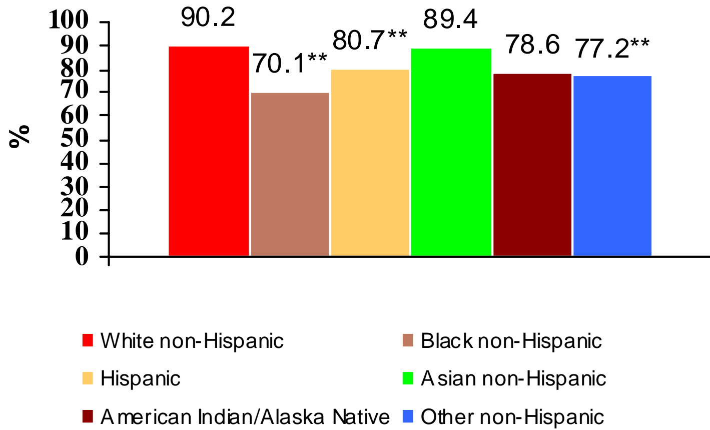
Data source: MassCHIP Natality Dataset

A significantly higher percentage of women in the CHNA received adequate prenatal care (89.5%) than the state (82.7%) from 2006-2008. Adequacy of prenatal care is also a concern for the 15-19-year-old population. A significantly lower percentage of women age 15-19 from the CHNA (76%) received adequate prenatal care than women of all ages living in the CHNA (89.5%).

Playground at Gray's Beach, Kingston

Race/ethnicity disparities in adequacy of prenatal care also exist within the city and the CHNA (see figure 6.2).

Figure 6.2: Adequate prenatal care by race/ethnicity, CHNA, 2006-2008



**Lower than White non-Hispanic
Only 11 AIAN births in this category and time period, should be interpreted with caution

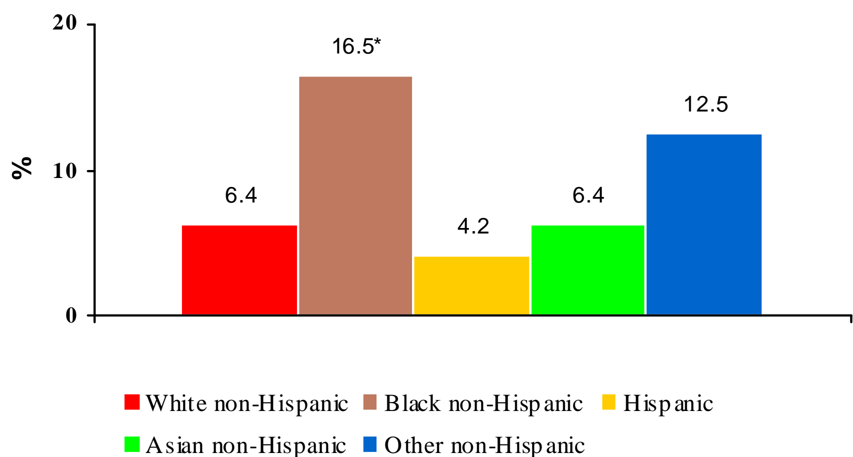
Data source: MassCHIP Natality Dataset

From 2006-2008, the CHNA had a higher percentage of mothers who reported smoking during pregnancy (8.8%) than the state (7.3%). Approximately the same percentage of Black non-Hispanic women (13.2%) Hispanic women (7.7%) and other non-Hispanic women (17.7%) in the CHNA reported smoking during pregnancy as white non-Hispanic women (8.7%). A significantly higher percentage of American Indian/Alaska Native women (35.7%) reported smoking during pregnancy than White non-Hispanic women during this time period, but there were only 14 births during this time period in this race/ethnicity group where the smoking status of the mother was known.

Race/ethnicity disparities were observed in the percentages of infants with low birth weight, defined as less than 2500 grams (see figure 6.3).

From 2006-2008, the CHNA had approximately the same infant mortality rate (4.0 per 1000) than the state overall (4.9 per 1000.) During this time period, there were 25 infant deaths; all occurred in White non-Hispanic infants.

Figure 6.3: Low birth weight by race/ethnicity, 2006-2008



*Higher than White non-Hispanic

Data source: MassCHIP Natality Dataset

LZ Thomas Field, Hanson

Some child health indicators include:

- The area rate of lead poisoning in the CHNA from 2006-2008 was 0.3% of all children screened, which was the same as the MA rate of 0.4% of all children screened. In addition, 0.9% of children screened for lead in CHNA had elevated blood lead levels, which was significantly lower than the state rate of 1.8%.
- The rate of death in people less than age 20 in towns in the CHNA was 30.9 per 100,000, which was approximately the same as the state (41.2 per 100,000).
- For fiscal year 2007, there were 732 active clients using Early Intervention services in the CHNA; there were 30,500 active clients in Massachusetts overall.
- In this CHNA, only the communities of Duxbury and Pembroke have water fluoridation, which has important implications for oral health.

Some indicators related to sexually transmitted infections in adolescents and young adults include:

- Among adolescents age 15-19, there were 37 new cases of Chlamydia in the CHNA in 2008, which was significantly lower than the state rate for this age group.
- Among young adults age 20-24, there were 81 new cases of Chlamydia in the CHNA in 2008, which was significantly lower than the state rate for this age group.

"Teen in Ponds of Plymouth crash speeding, unlicensed"
Rich Harbert, Wicked Local Plymouth, March 30, 2011

In a survey conducted by Karen Fabrizio of Kids Kastle, parents stated that finding care for sick children was an issue if they needed to go to work. Though a Boston hospital provides a service for its employees where a childcare provider will go to a parent's home to care for an ill child, no such model exists in the CHNA. Parents stated that in this situation, they rely on family or friends, continue to call in sick, have a business partner do their work, or their spouses or teenage children stay home to care for the sick child.

Health of children in the community was also of concern to community residents. Multiple comments on the community input survey concerned:

- The desire for healthier school lunches;
- Childhood obesity as a problem;
- The importance of emphasizing healthy eating in schools;
- The need for additional recess and/or physical activity time during school;
- The need for safe playgrounds;
- The need for better food choices in school cafeterias;
- Two comments identified the need for education about pregnancy and STIs for teenagers;
- Two comments cited lice in schools or the procedure for dealing with head lice to be of concern.

Key Informant Perceptions

One key informant had noticed that, among at-risk adolescents, parents were not actively engaging in parenting—that many times, parents either did not have parenting skills and were not setting limits for their children. Some parents found the time required to provide for the family financially took up too much time and exhausted them too much for them to be able to parent adequately at the end of the workday.

Another key informant observed that asthma, Type I diabetes, and obesity were issues among children in the area. The key informant noted that recess and physical education have been cut back, and that many children live in families where both parents work. Parents are hesitant to let their kids play outside when they are working and the kids are home alone. In addition, this key informant noted that many children prefer playing video games to going outside.

By the numbers:

- *A lower percentage of non-Hispanic Black women, Hispanic women, and other non-Hispanic women in the CHNA received adequate prenatal care than non-Hispanic White women in the CHNA from 2006-2008.*
- *From 2006-2008, the CHNA had a higher percentage of mothers who reported smoking during pregnancy (8.8%) than the state (7.3%).*
- *A higher percentage of Black non-Hispanic infants born in the CHNA had a low birth weight compared to White non-Hispanic infants.*
- *In this CHNA, only the communities of Duxbury and Pembroke have water fluoridation, which has important indications for oral health.*

Section 7: Risk Behaviors and Health Screening

Risk factors such as being overweight, not eating an adequate number of servings of fruits and vegetables per day, and smoking may increase risk of certain chronic diseases. Data about such behaviors are available from the Behavioral Risk Factor Surveillance System (BRFSS), which is an annual telephone survey of Massachusetts residents age 18 and older.

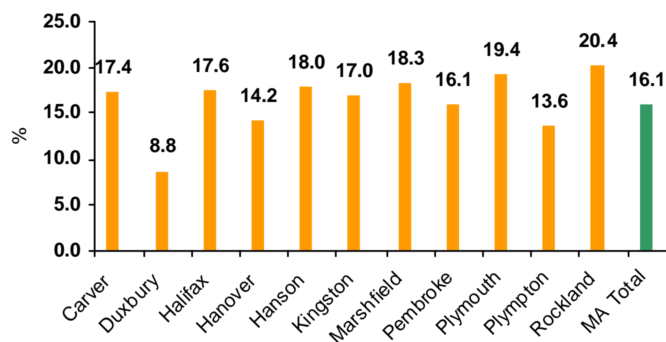
Table 7.1: Risk Factors in the CHNA

	CHNA Percent (95% confidence interval)	State Percent (95% confidence interval)
Overweight/obese	58.8 (54.2-63.3)	58.2 (57.4-58.9)
Any leisure time physical activity, past 30 days	81.1 (78.0-84.3)	78.7 (78.1-79.2)
At least five servings of fruits/vegetables per day	25.3 (20.6-30.0)	26.9 (26.1-27.6)

Data source: McKenna M Tinsley L et al (2010). *A Summary of Health Risks and Preventive Behaviors in Community Health Network Areas (CHNAs) 2007-2009.* Available from: http://www.mass.gov/dph/hsp.

The CHNA has approximately the same percentage of residents who reported being overweight or obese as the state overall, approximately the same percentage of residents who reported engaging in any leisure time physical activity in the past month, and approximately the same percentage of residents who reported that they consumed at least five servings of fruits or vegetables per day than the state overall (see table 7.1). The CHNA had a higher percentage of residents who reported that they were former smokers (34.6%) than the state overall (28.3%).

Many towns in the CHNA have a rate of current smoking in adults higher than that of adults in the state overall. Figure 7.1 contains smoking rates for each town in the CHNA.



Data source: Massachusetts Tobacco Control Program

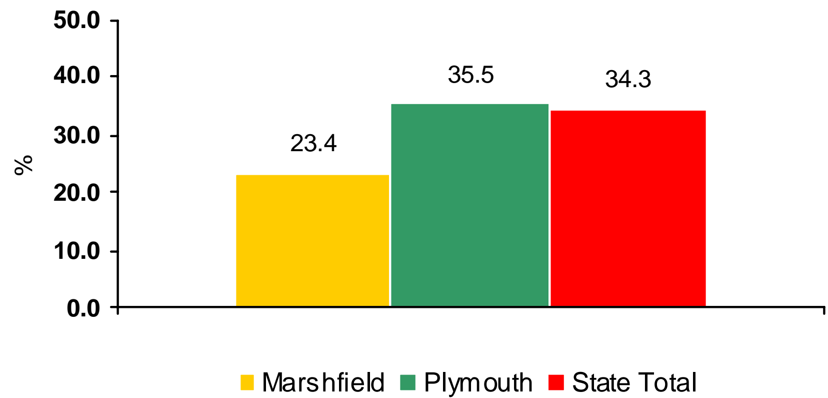
For rates of overweight and obesity in children, data was available for two CHNA school districts: Plymouth and Marshfield. Figure 7.2 includes comparisons of these school districts to the state for students in grades 1, 4, 7, and 10.

Waterfront, Plymouth

Farm stand, Plympton

Another important prevention measure is obtaining screening tests and preventive care in a regular fashion. Such care increases the probability of early detection of chronic diseases and avoiding preventable diseases. According to the BRFSS:

Figure 7.2: Percentage of students in public schools who are overweight or obese in grades 1,4,7, and 10, 2008-2009 school year



Data source: "The Status of Childhood Weight in Massachusetts, 2009" Massachusetts Department of Public Health

- Approximately the same percentage of people age 65 and older living in the CHNA (76%) reported that they had obtained a flu vaccination in the past year as residents of the state overall (75%);
- Approximately the same percentage of CHNA residents age 50 and older reported that they had received a colonoscopy or sigmoidoscopy in the past five years (62%) as residents of the state overall (64%);
- Approximately the same percentage of female residents of the CHNA age 40 and older (86%) reported that they had a mammogram in the past two years as female residents of the state overall in the same age group (85%);
- Approximately the same percentage of residents of the CHNA age 18 to 64 reported that they had ever had an HIV test (38%) as residents of the state overall (43%);

- Approximately the same percentage of residents of the CHNA age 18 and older reported that they had had cholesterol checked in the past five years (84%) as residents of the state overall (84%).

Tennis courts, Carver Middle/High School

What the Community is Saying …
"…People are finally saying that, 'whoa, maybe never smoking is better than trying to quit, maybe exercising regularly and maintaining your weight, maybe that's a good thing'…that is the way the world is supposed to be."
--Key informant

Various risk behaviors were of concern to community residents. Overweight and obesity were identified as concerns by a large percentage of healthy residents, along with concerns about nutrition and physical activity. Multiple comments related to risk behaviors concerned:

- "Exercise" as a need for families in the Plymouth area and lack of exercise as a problem;
- Need for increased numbers of walking/biking paths for pedestrians in the Plymouth area; one participant suggested developing a path along the Plymouth waterfront;
- More sidewalks or to improve condition of sidewalks;
- Affordability of fitness facilities as an issue;
- Lack of healthy food choices and healthy restaurants;
- Poor eating habits as an issue;
- Increased access to locally-grown foods;
- The cost of healthy food as a barrier;
    - Individual participants suggested expanding the WIC and SNAP programs, food banks, and *"affordable food"* as needs

"Double Dutch team has squads from Boston, Quincy, Pembroke"
Maureen McCarthy, The Patriot Ledger, February 24, 2011

- Lack of additional educational opportunities around nutrition.
    - *"I wish there were more educational opportunities for people looking to learn about practical applications for improving their daily nutrition. I*

understand the science behind proper nutrition and a balanced diet, but I wish I had a better handle on how to incorporate it into my daily life."

Key Informant Perceptions

Key informants identified risk behaviors among the Portuguese-speaking Brazilian population as:

- Working many jobs, which not only causes a great deal of stress, but people do not have time to exercise or prepare healthy meals and end up consuming fast food on the go;
- Diets high in starches and carbohydrates;
- Expense of health screening and routine medical visits, since area health care providers do not accept new patients with MassHealth or any patients with Health Safety Net insurance;
- Fresh fruits and vegetables available in the United States are not very fresh compared to what is available in Brazil.

Key informants identified risk behaviors and health screening issues among the general population as:

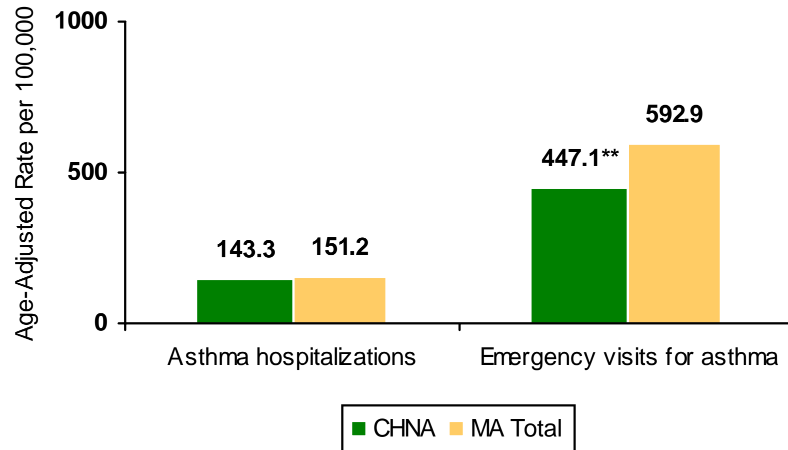
- An increasing trend in morbidly obese patients;
- HIV tests not being offered on a routine basis in physicians' offices, which is a problem nationally as well as in Plymouth;
- Community residents continuing to use the emergency room for primary care due to inability to take time off from work and lack of education about when their providers' offices are open (some providers offer extended evening hours);
- Childhood obesity, though one key informant noted that the Plymouth school system was attempting to tackle this by addressing vending machines and foods available in schools. This key informant also noted that school sports may not be as accessible to kids as they always were, and kids might have difficulty joining a team if they are not an elite athlete.

By the numbers:

- *The CHNA had a higher percentage of residents who reported that they were former smokers (34.6%) than the state overall (28.3%).*
- *Approximately 19% of adults in Plymouth and 20% of adults in Rockland are current smokers compared to 16% for the state overall.*
- *Almost 1 in 4 children in grades 1,4,7, and 10 in Marshfield and over 1 in 3 children in the same grades in Plymouth is overweight or obese.*
- *Approximately the same percentage of adults in the CHNA reported being overweight or obese, engaging in any leisure time physical activity in the past month, and consuming 5 or more servings of fruits or vegetables per day as adults in the state overall.*

Examining the diagnosis and management of chronic illnesses reveals much about the state of health in a community. Problems with management of chronic illnesses may indicate lack of access to health care, inability to afford medications, or inability to understand medical providers' instructions for managing the illness.

Figure 8.1: Asthma, 2006-2008

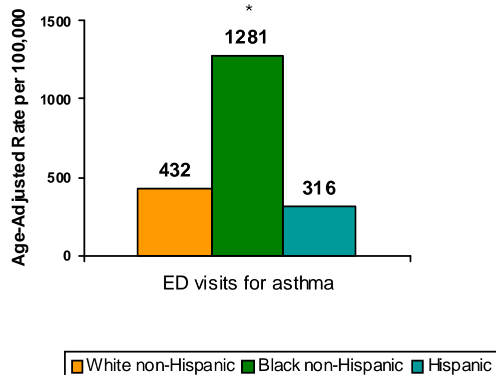


**Lower than state rate

Data source: MassCHIP Emergency Department and Hospitalization datasets

From 2007-2009, approximately the same percentage of residents in the CHNA age 18 and older reported that they had ever been diagnosed with diabetes (7%) as residents of Massachusetts overall (8%). A percentage of CHNA residents age 18 and older reported current asthma (7%) bordering on significantly lower rate as the state overall (10%).

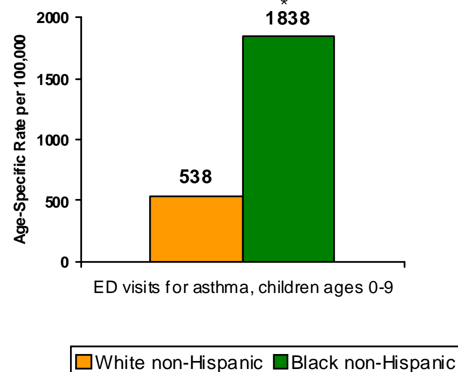
Figure 8.2: ED visits for asthma in the CHNA, by race/ethnicity, 2004-2008



*significantly higher than White non-Hispanic

Data source: MassCHIP 2004-2008 emergency department visits

Figure 8.3: ED visits for asthma in the CHNA, by race/ethnicity, 2004-2008



*significantly higher than White non-Hispanic
Insufficient data for "Hispanic"

Data source: MassCHIP 2004-2008 emergency department visits

Despite similar rates of chronic diseases in the CHNA and state, emergency department visits for asthma were lower in the CHNA than in the state (see figure 8.1).

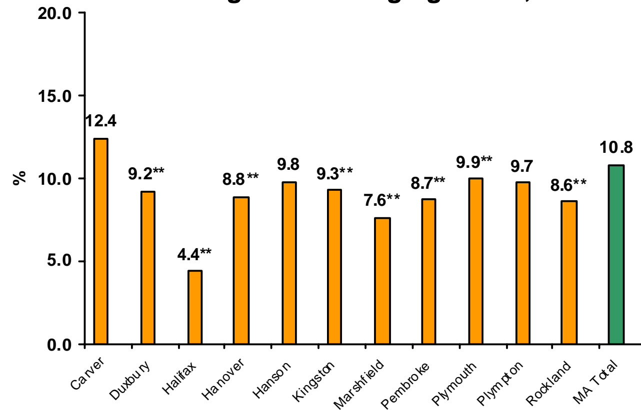
When breaking down management of chronic diseases by race/ethnicity, we also see disparities in emergency department visit rates. The age-adjusted emergency department visit rates for asthma concerning non-Hispanic Black CHNA residents of all ages were over twice as high as the rate for non-Hispanic White residents (see figure 8.2). In children age 0-9, the age-specific emergency department visit rates for non-Hispanic Black CHNA residents were also over twice as high as the non-Hispanic White children (see figure 8.3).

What the Community is Saying …

"[I've seen] *diabetes in younger people…I don't know what* [the reason is]. *I've seen quite a few young Brazilians with diabetes, and not all of them are obese that you could link to* [food.]"

--Key informant

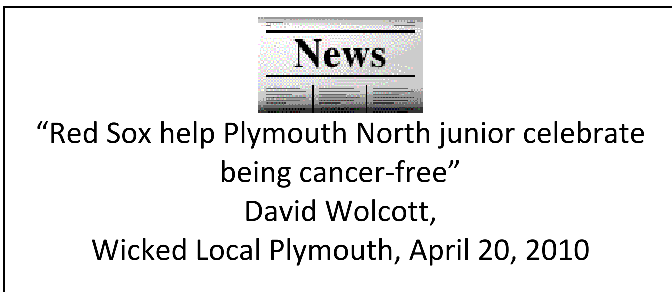
Figure 8.4: Prevalence of lifetime asthma among children in kindergarten through grade 8, 2006-2007



**Significantly lower than state rate

Data source: MA DPH, Bureau of Environmental Health

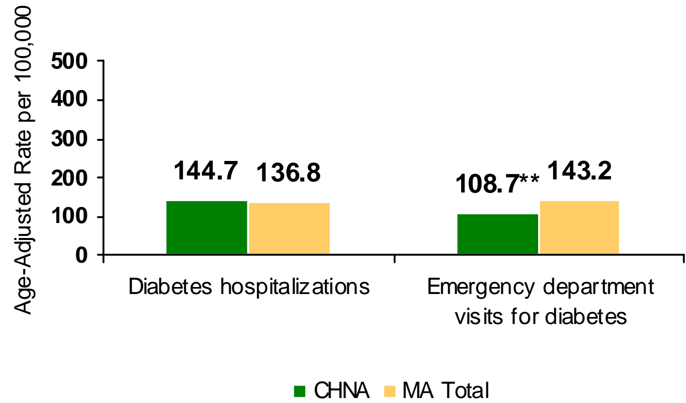
The prevalence of asthma in children varies among each of the CHNA towns, according to data from the Asthma Prevention and Control Program at the Massachusetts Department of Public Health (see figure 8.4).



Sign seen upon entering Carver High/Middle School

Similar issues emerge when examining management of diabetes in the CHNA. The CHNA had a significantly lower age-adjusted rate of emergency department visits for diabetes than the rate for the state overall (see figure 8.5).

Disparities also exist when examining diabetes management by race/ethnicity: non-Hispanic Black residents of the CHNA have a higher age-adjusted rate of emergency department visits for diabetes (228 per 100,000 people) than non-Hispanic White residents (102 per 100,000) from 2004-2008.



**significantly lower than state

Data source: MassCHIP emergency department visits and hospitalization datasets, 2006-2008

Basketball court, Gray's Beach, Kingston

Downtown Plymouth

Figure 8.6 compares the rate of new cases of many types of cancer among women in the CHNA to women in Massachusetts. The age-adjusted mortality rate for women from lung cancer in the CHNA from 2006-2008 (55.0 per 100,000 women) was significantly higher than the state (42.5 per 100,000 women).

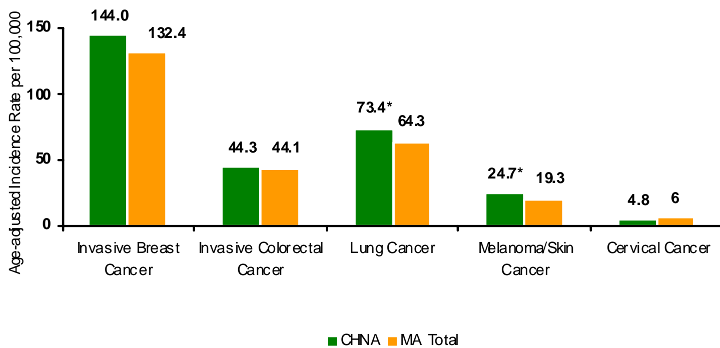
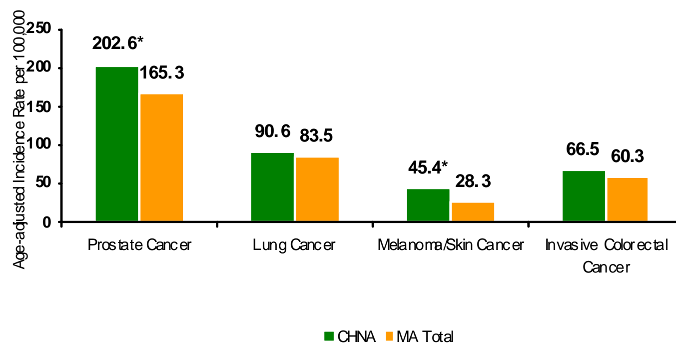


Figure 8.7 contains the rates of new cases of cancer for men in the CHNA and the state. The age-adjusted rate of prostate cancer and melanoma/skin cancer was higher in men in the CHNA towns from 2003-2007.

Some other chronic health conditions include:

- In the CHNA, the rate of new cases of Lyme disease (100.6 per 100,000) was higher than the state (62.9 per 100,000) in 2008.
- In years including 2004, 2006, and 2008, the CHNA had a approximately the same percentage of people age 18 and older who reported five or more teeth missing due to decay or disease (14.9%) as the state (14.7%).



At the end of 2009, there were 131 people living with HIV/AIDS in the CHNA. There were 17 new cases of HIV diagnosed in the CHNA from 2006-2008. Of persons living with HIV/AIDS:

- 81% were non-Hispanic White, 9% were non-Hispanic Black, and 10% were Hispanic;
- 82% were male and 18% were female;
- 47% were infected through men having sex with men (MSM), 21% through intravenous drug use (IDU), 11% through heterosexual sex, 9% through presumed heterosexual sex, 4% through MSM/IDU, 4% Other, and 5% unknown.

According to the Massachusetts Department of Public Health:

- The incidence of Chlamydia was 84.8 new cases per 100,000 in 2008 in the CHNA, which was significantly lower than the state incidence rate of 268.3.
- The incidence of gonorrhea was 4.2 new cases per 100,000 in the CHNA in 2008, which was significantly lower than the state incidence rate of 31.9.

Chronic illnesses also emerged as a health concern among community residents. Multiple comments from the community input survey indicated concerns about:

  - Asthma;
  - Diabetes;
  - Lyme disease;
  - Arthritis;
  - Cancer;
  - Osteoporosis;
  - High blood pressure;
  - High cholesterol;
  - Smoking;
  - Cardiovascular disease;
  - Heart disease in women;
  - HIV/AIDS as health issues.

Key Informant Perceptions

One key informant noted that health issues found among adults with developmental disabilities include pneumonia, especially for people with Down's syndrome; urinary tract infections; choking issues due to improper chewing; dehydration; bowel issues such as constipation; falls; cardiac issues, especially for people with Down's syndrome; and chronic obstructive pulmonary disease (COPD).

Another key informant stated that a program that would be beneficial for the community would be the provision of personal tracking devices for people with Alzheimer's disease or autistic children in case they were to wander away.

Key informants who work with the Portuguese-speaking Brazilian community identified the following health issues:

- Type II diabetes among relatively young individuals;
- Back pain from working many labor-intensive jobs;
- Heart problems;
- Hepatitis A, B, and C;
- Asthma, bronchitis, and pneumonia among Brazilian children;
- Exposure to tuberculosis or positive tuberculosis tests.

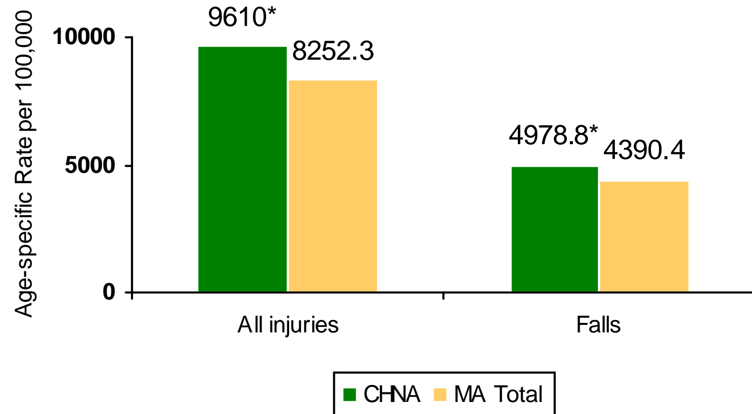
Houses along the beach, Marshfield

By the numbers:

- *Black non-Hispanic CHNA residents of all ages had significantly higher rates of emergency department visits for asthma from 2004-2008 than White non-Hispanic CHNA residents, and the same disparity exists for Black non-Hispanic children age 0-9 during the same time period.*
- *Women in the CHNA had a higher incidence of lung cancer and melanoma/skin cancer than women in the state overall from 2003-2007.*
- *Men in the CHNA had a higher incidence of prostate cancer and melanoma/skin cancer than men in the state overall from 2003-2007.*
- *As of December 31, 2009, there were 131 people living with HIV/AIDS in the CHNA.*

Section 9: Older Adults

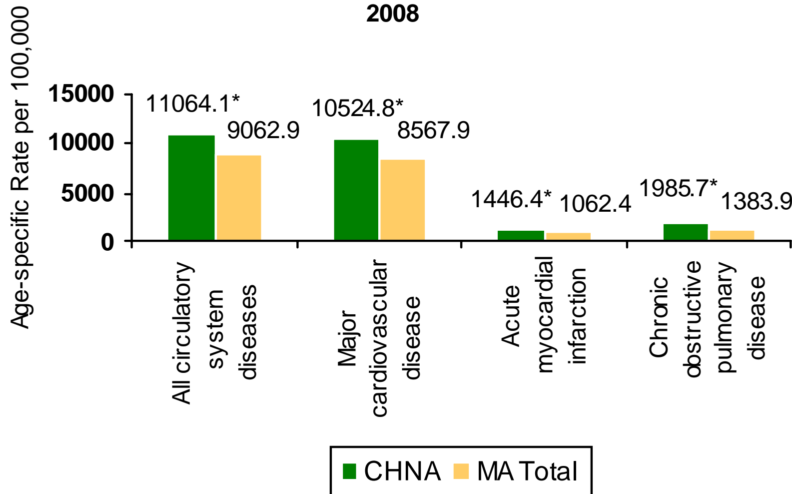
For the purposes of this assessment, "older adult" is defined as adults age 65 and older. Older adults in the CHNA had higher rates of hospitalization both for all injuries and for falls than adults in the same age group in the state overall (see figure 9.1). Older adults in the CHNA had a significantly lower rate of emergency department visits for hip fractures (38.6 per 100,000) as adults in the same age group in the state overall (56.8 per 100,000).



*Significantly higher than state rate

Data source: MassCHIP Emergency Department dataset

In addition, older adults had a higher rate of hospitalization for various cardiovascular, circulatory, and pulmonary diseases than adults in the same age group in the state (see figure 9.2).



*Significantly higher than state rate

Data source: MassCHIP hospital discharge dataset

According to data from the BRFSS, a statewide telephone survey, from 2005-2009, approximately the same percentage of adults age 65 and older from the CHNA:

- Reported that they have arthritis (54%) as adults in the same age group in the state overall (55%);
- Have had a colonoscopy or sigmoidoscopy in the past five years (61%) as adults in the same age group in the state overall (64%);
- Report that they have ever been diagnosed with diabetes (18%) as adults in the same age group in the state overall (17%);
- Report that they receive five or more servings of fruit or vegetables per day (24%) as adults in the same age group in the state overall (31%);
- Reported a disability (42%) as adults in the same age group in the state overall (33%);
- Have been diagnosed with hypertension in their lifetimes (56%) as adults in the same age group in the state overall (57%);
- Participated in any physical activity in the past month (66%) as adults in the same age group in the state overall (69%);
- Reported being former smokers (50%) as adults in the same age group in the state overall (48%);
- Reported being overweight (62%) as adults in the same age group in the state overall (60%).

What the Community is Saying …
"Today's senior is not the senior that we knew 10-15 years ago. It's different. They're…active, they're driving, they're out, most of them are not just sitting in their apartments. That's a rarity, today, I think. I really do."
--Key informant

"A GOOD AGE"
Series in The Patriot Ledger profiling local older adults

Among community residents, health issues related to older adults were identified as concerns. Multiple comments focused on:

- Ensuring more services and activities for older adults;
- The need for affordable healthcare for older adults.
  - *"I am afraid to go on Social Security. I will be forced to choose between heat/food and prescription drugs."*

Key Informant Perceptions

One key informant interviewed on the subject of older adults stated that she was seeing many more active older adults than in years past; that many of these older adults were taking advantage of programs offered through the senior centers in the area and receiving regular medical care from physicians. She noted that many older adults in the area have many options for housing in

the community that might not have been available in years past; if a senior has the financial resources, they may enroll in housing that offers a step-down option from independent living to assisted living to eventual nursing home care. Another key informant noted that some older adults may have difficulty for paying for medications or transportation to medical appointments, though the Council on Aging in certain towns may provide some access to transportation.

Marshfield Senior Center

American Legion Post 223, Duxbury

By the numbers:

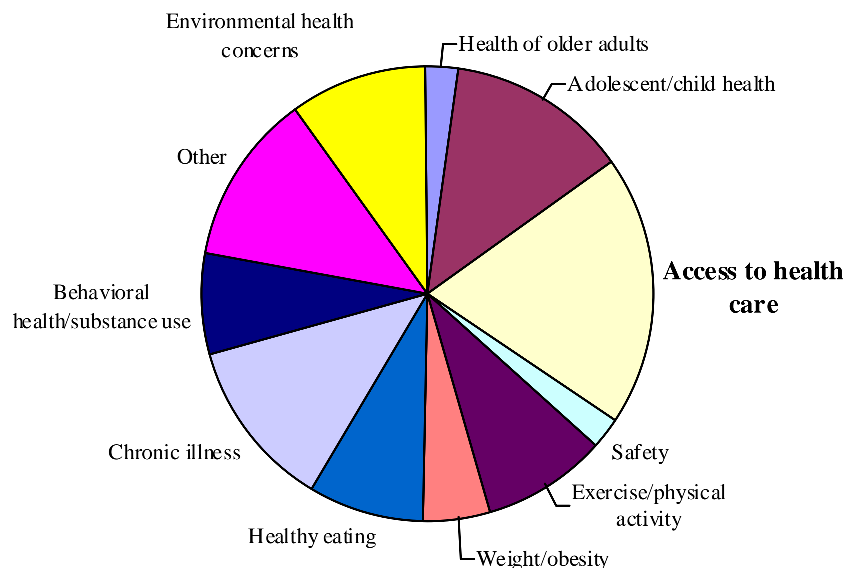
- *Adults age 65 and older in the CHNA had higher rates of emergency department visits for all injuries and for falls than adults age 65 and older in the state overall.*
- *Adults age 65 and older in the CHNA had higher rates of hospitalizations for all circulatory system diseases, major cardiovascular disease, myocardial infarction, and chronic obstructive pulmonary disease than adults age 65 and older in the state overall.*

Health Issues Identified by Community Residents

To solicit community feedback, the CHNA assessment subcommittee released a community input survey. Community residents had two options for completing the survey: printed postcards or online. Postcards were distributed in CHNA communities in such places including, but not limited to: food pantries, physicians' offices, town halls, and human service agencies. Respondents were instructed to drop the completed postcard in the mail. The postage was prepaid by South Shore Hospital. Online survey respondents submitted their responses on the website surveymonkey.com.

A total of 180 postcards via mail and 138 online responses were received from community members. Information about the age distribution, sex distribution, and town distribution of survey responses may be found in Appendix D. The data from the 21 non-CHNA respondents and 8 respondents who did not indicate a town of residence were included in this analysis due to the fact that they may be receiving services in the CHNA and their input was deemed valuable to the assessment team. Comments from community residents were organized into 11 broad topics listed below. The 318 respondents wrote 900 separate comments on health issues of concern to them. According to survey participants, the most pressing health concern appears to be **access to and affordability of healthcare and health insurance. 19%** of the comments fell into this category.

Distribution of Survey Responses



Access to and affordability of health care and health insurance (19% of comments)
31% of the comments focused on lack of affordability of health insurance, copayments, dental care, ophthalmology, medications, or the need for assistance for people who are just above the poverty line and need help paying for necessities. **Multiple comments** focused on: o Access to doctors, specialists (such as cardiology) or dentists; ▪ *"A lot of doctors aren't taking new patients, or are impossible to book! I often end up at walk-in clinics because I'm sick and my doctor can't fit me in."* o Access to health information; o Accessibility to primary care and dental services for MassHealth recipients; o Access to immunizations for children and adults; o The need for a community health center; o The need to increase access to transportation, particularly to and from medical appointments. **Individual comments** focused on: o Quality of care for disabled family members; o Two comments mentioned the need for a pediatric emergency department at Jordan Hospital; o Lack of community resources for intellectually disabled individuals in the area; o Access to "good" doctors, or "having 'Boston' class doctors without going to Boston;" o Funding to remain for individuals with HIV; o Educational materials to be available in Portuguese and Spanish; o Mental health facilities with interpreters who speak Portuguese and Spanish; o Access to *"holistic"* health care providers; o Local support for parents of premature babies; o Poor dental hygiene among disabled individuals and lack of funding for this purpose to the Department of Developmental Services.

Health of children and adolescents (13% of comments)
Multiple comments focused on: - The desire for healthier school lunches; - Childhood obesity as a problem; - The importance of emphasizing healthy eating in schools; - The need for additional recess and/or physical activity time during school; - The need for safe playgrounds; - The need for better food choices in school cafeterias. **Individual comments** focused on: - The need for access to mental health care for children; - The need for increased opportunities and help for children with disabilities; - The need for free play time; - The need for tuition assistance for "non-state-run" preschool and daycare; - The need for domestic violence education in schools and increased domestic violence services for the child/teen/parental population; - The need for smoking cessation education in schools; - Teenage alcohol abuse; - Effects of vaccines on children; - Childhood asthma; - Child abuse; - The need for parenting classes for parents of young children; - The need for air conditioning in schools; - **Two comments** cited the need for pregnancy and education about STIs for teenagers; - **Two comments** cited lice in schools or the procedure for dealing with head lice to be of concern.

Marshfield Boys' and Girls' Club

Chronic illnesses and risk factors (12% of comments)
Multiple comments focused on: o Asthma; o Diabetes; o Lyme disease; o Arthritis; o Cancer; o Osteoporosis; o High blood pressure; o High cholesterol; o Smoking; o Cardiovascular disease; o Heart disease in women; o HIV/AIDS as health issues. **Individual comments** focused on: o Breast, brain, and thyroid cancer as concerns; o Additional programming concerning asthma, diabetes, and arthritis; o Diabetes management; o Diabetes prevention and education; o Hepatitis A, B, and C; o Lupus; o Stroke; o Chronic obstructive pulmonary disease (COPD); o West Nile Virus.

Health food store, Hanover

Environmental health issues (10% of comments)
Multiple comments focused on: o Water quality as a concern, including: ▪ Too much trash in water; ▪ Drinking water quality and safety; ▪ Animal feces all over streets that affect water and beaches; ▪ Clean, protected, sustainable water supply. o The need to keep beaches clean; o Air quality as a health concern, with individual participants giving examples such as car exhaust, smog from the train, and lung illnesses; o Concern over the nuclear power plant and potential health effects such as cancer; o Planting trees; o Mosquito spraying, Triple E, and mosquito control as health concerns. **Individual comments** focused on: o Trash dropped on town streets; o Recycling; o Water is brown in Plympton due to the *"wells,"* o Resource conservation; o Preservation of land for wildlife; o Air filtration in schools and workplaces; o The need for asbestos screening; o Increasing awareness of the benefits of composting; o The increasing presence of bikers with noise pollution and exhaust; o Ticks; o Hazardous use of chemicals.

Pembroke Herring Run

Physical activity (9% of comments)
Multiple comments focused on: o "Exercise" as a need for families in the Plymouth area and lack of exercise as a problem; o Increased numbers of walking/biking paths where pedestrians in the Plymouth area; one participant suggested the Plymouth waterfront; o More sidewalks or to improve condition of sidewalks; o Affordability of fitness facilities as an issue. **Individual comments** focused on: o Fitting fitness into work schedules; o Access to community-based exercise programs for all ages; o Improved trail maintenance.

Healthy eating and nutrition (8% of comments)
Multiple comments focused on: o Lack of healthy food choices and healthy restaurants; o Poor eating habits as an issue; o Increased access to locally-grown foods; o The cost of healthy food as a barrier; ▪ Individual participants suggested expanding the WIC and SNAP programs, food banks, and *"affordable food"* as needs o Additional educational opportunities around nutrition. ▪ *"I wish there were more educational opportunities for people looking to learn about practical applications for improving their daily nutrition. I understand the science behind proper nutrition and a balanced diet, but I wish I had a better handle on how to incorporate it into my daily life."* **Individual comments** focused on: o Processed foods being too readily available; o Behavioral problems associated with poor nutrition; o Rockland needing a supermarket; o Access to nutritionists for MassHealth recipients; o The importance of family dining and need for programs about that issue.

Behavioral health and substance use (7% of comments)
Multiple comments focused on: o Depression, stress and stress-related health concerns as problems; o Substance use as a health problem and substance abuse prevention as a health concern; o Alcohol use; o Emotional health as a health concern; o The need for additional mental health services such as support groups, psychiatric services for children, outpatient mental health services capable of evaluation so people may avoid the emergency room, residential services, and counseling; o ADHD; o Autism. **Individual comments** focused on: o Ensuring that people get sufficient rest; o *"Mental health is* [taboo] *in many cultures, therefore education is imperative;"* o Groups for those with Asperger's; o *"Access to quality mental health*—[competence] *dealing with learning disabilities;"* o Stress related to the economy; o Post-traumatic stress disorder (PTSD); o Self-esteem; o Stigma; o Women's psychological needs, specifically *"abuse, recovery, [and] poverty,"* o "Energy levels;" o **Two comments** cited maternal mental health and postpartum depression as concerns.

Obesity or weight (5% of comments)
Multiple comments focused on obesity or weight as a problem **Individual comments** focused on: o Support groups for weight loss; o Finding resources for dealing with obesity; o Adults learning not to pass bad habits on to children.

Health of older adults (2% of comments)
Multiple comments focused on: o Ensuring more services and activities for older adults; o The need for affordable healthcare for older adults. ▪ *"I am afraid to go on Social Security. I will be forced to choose between heat/food and prescription drugs."* **Individual comments** focused on: o Physical activity programs for older adults that are covered by health insurance; o A *"senior safety check* [for] *neighbors who are homebound;"* o Isolation due to no public transportation; o Support both for older adults with Alzheimer's and for caregivers of older adults with Alzheimer's; o More meals on wheels.

Safety (2% of comments)
Multiple comments focused on: o Domestic violence, including education for the courts and education for families; o "Public safety" programs. **Individual comments** focused on: o The need for additional police officers; o Poor road conditions, need for stop signs at intersections, and/or need for additional snow removal; o *"Safe building guidelines;"* o The need for car seat inspections; o The need for streetlights; o Injury prevention; o The need to address *"domestic, gang, and societal"* violence *"in general."*

Other (12% of comments)
Multiple comments focused on: o Flu as a health concern; o Preventive care; o "Overall health" as a concern; o Allergies as a health concern; o *"Wellness programs;"* o The need for housing. **Individual comments** focused on: o Respiratory syncytial virus (RSV); o Disease prevention; o Personal hygiene; o Vision; o "Good doctors;" o "Hand-foot-mouth" disease; o Immunity; o Injury prevention; o Keeping mind active/turning TV off; o "Lifestyle" relating to "bad habits; o No hunting in posted areas such as state parks; o Parents should act as role models; o Spread of illness at work; o Wellness programs and recreational opportunities; o Too much television/video game time; o Defibrillators should be available in public areas; o Hepatitis A; o Road congestion along route 139 in Marshfield; o Teaching natural remedies as alternatives to prescription drugs.

Little League field, Rockland

Summary of Key Informant Interviews

In order to obtain more detailed information about the top health concerns identified by community members during the community input survey, the CHNA steering committee identified key informants to be interviewed about health concerns in its communities. Due to confidentiality constraints, individual key informants are not identified in this report. Key informant interviews were conducted for the following subject areas: child/adolescent health, health care access, health disparities, health of older adults, disabilities, HIV/AIDS, environmental health, public safety, and behavioral health and substance use. 15 key informant interviews were conducted. The same questions were asked of all key informants, and the same interviewer conducted all interviews. Key informant interviews were conducted from March through May 2011. Questions asked to key informants may be found in Appendix E. Below are selected findings from the key informant interviews regarding how the Plymouth area helps and harms people in their efforts to remain healthy; key informant perspectives have also been added to each section of the report to give a more in-depth view of particular health areas.

Aspects of the Plymouth area that help people to stay healthy:

- A forthcoming Community-Based Outpatient Clinic (CBOC) for veterans;
- Social organizations for veterans such as the American Legion, VFW, and Nathan Hale;
- Parks and beaches;
- Bike trail in Plymouth at Nelson Park;
- Many walking trails in Plymouth;
- Women, Infants, and Children (WIC) office in Plymouth, a program of Health Imperatives;
- ACCESS program at Jordan Hospital;
- Plymouth Family Planning, a program of Health Imperatives;
- Proximity to Cape Cod and Boston;
- Many free or low-cost activities;
- Plymouth recreation department offering many day camps and other activities such as yoga and ballroom dancing;
- Very walkable town in areas where there are sidewalks;
- More services than there were 20 years ago, such as food banks and homeless services;
- Plymouth AIDS Support Services (P.A.S.S.), a program of Health Imperatives;
- Father Bill's in close proximity to the area;
- Mass Rehab;
- Plymouth Fitness;
- Active, well-attended senior centers offering many programs in Duxbury, Kingston, and Pembroke;
- Pembroke Community Center and programs offered through the Pembroke Library;
- Enrichment programs offered by the Pembroke school system and recreation department;
- Adult softball and soccer leagues in Pembroke;
- The Pembroke skating rink;

- The Bicentennial running track in Rockland;
- Council on Aging in Rockland;
- Upcoming construction of a walking trail in Rockland;
- Athletic programs in Rockland such as Little League, football, lacrosse, and basketball;
- Hanover Y.

Aspects of the Plymouth area that make it difficult for people to stay healthy:

- Not a lot of services in the area;
- Plymouth is very spread-out geographically, so elderly people have to travel far distances for services;
- Lack of public transportation;
- Lack of transparency in how to use the GATRA system, and the GATRA does not have enough stops to be useful to many people;
- Lack of sidewalks along main streets in Pembroke;
- Cost of living is high and property ownership is expensive, making it necessary for people to work multiple jobs;
- Lack of Portuguese-speaking medical interpreters at area physicians' offices and dental offices, so many Portuguese-speaking people visit the emergency room for care;
- Lack of primary care physicians who accept MassHealth and Commonwealth Care;
- Lack of job opportunities in Plymouth—many people have to commute far distances to work;
- Perception of high amounts of substance use and alcohol use;
- People living in vacation cottages that have been winterized, but not fully made over into year-round homes;
- Trash that can wash up on beaches or blow over to beaches; community members may organize beach cleanup days;
- Occasional commercial dumping and dumping of large trash items in vacant lots due to the fact that there is so much open space in Plymouth;
- Services in the community are fragmented—no centralized location for health-related resources and referrals;
- Large disparities in income and access to services between people in South Plymouth and people in North Plymouth;
- Lingering perception among Portuguese-speaking people that they cannot receive timely services in Portuguese at Jordan Hospital, and thus they must travel to Brockton;
- No community health center—closest are Bourne and Hull, and they are not accessible by public transportation;
- No "one-stop shopping" center where a person diagnosed with HIV can receive all medical services on-site;
- Lack of dentists closer than Taunton who see people with developmental disabilities;
- Funding cuts to the Rockland Youth Commission;
- Expense of participating in some youth sports in Rockland;
- No primary care providers' offices located in Rockland;

- Not many medical providers such as primary care providers and psychiatrists in the area are equipped to see people with developmental disabilities.

Additional resources that key informants would like to see in the Plymouth area:

- Housing for veterans;
- Additional local transportation;
- Additional transportation to Boston and other areas;
- Mental health support;
- Additional health care providers that accept MassHealth, Commonwealth Care, or Health Safety Net insurance;
- Additional interpreter services in area health care providers' offices;
- Additional trainings for community people on different health issues, like bullying in schools and how teachers may recognize signs of bullying;
- Assistance with health insurance copayments for people who have high insurance costs or deductibles;
- Additional scholarship assistance for recreation department programs in Plymouth;
- Additional wellness programs in the community;
- Expanded programs offered by the Y for kids after school;
- Programs where police go into schools and form partnerships—kids may see police as more approachable that way;
- Jordan Hospital offering additional health programming in the schools;
- Model programs such as partnerships among community organizations, police departments, and the schools for the benefit of youth;
- Mental health outreach and education for the Portuguese-speaking community;
- Additional educational materials and community health assessment materials in Portuguese and Spanish;
- Multi-lingual resource line that people may call for information about services in the Plymouth area;
- Community health center or private walk-in clinic where people can be seen for minor health issues without having to go to the emergency department;
- Additional education about HIV/AIDS for older adults, school-age adolescents, and health care providers in the community;
- Additional outreach from community organizations to incorporate people with developmental disabilities;
- Additional education for medical providers around improving quality of care and providing care for people with developmental disabilities;
- Additional education programs concentrating on the natural resources of the Plymouth area;
- Additional funding for the Rockland Youth Commission;
- Programs to make personal tracking devices available for people with Alzheimer's disease or autism in case of wandering away;

- Expanding town sewer in Plymouth;
- Resources for students who become homeless.

The Country Store, Plympton

Programs and Services Available in the CHNA Catchment Area

The following is a partial list of area health programming, grouped by broad health topic, administered by various agencies in the CHNA catchment area. This list was compiled with the assistance of the Plymouth County Resource Manual published by the Plymouth County District Attorney's Office in October 2009, the Family Support Resource Directory compiled by the South Shore Community Action Council, and the Health Imperatives Service Coordination Collaborative's Resource Guide from 2008. The CHNA welcomes any additions to this list and any service providers or community members who would like to attend its meetings. To add to this list or for information on the dates, times, and locations of upcoming meetings, please contact CHNA coordinator Louise Gorham, lgorham@healthimperatives.org.

General Health Services and Health Screening:
Jordan Hospital
Plymouth Family Planning, a program of Health Imperatives
Hull Teen and Women's Health, a program of Health Imperatives
Manet Community Health Center (Hull)
HealthPoint, a program of Turning Point (Wareham)
South Shore Hospital (Weymouth)
Tobey Hospital (Wareham)
Tufts Services Project—dental (Boston)

Insurance Services:
Children's Medical Security Plan
Health Connector
MassHealth
MassHealth Family Assistance
BMC Health Net
Network Health
Neighborhood Health Plan

Elder Services:
Alzheimer's Caregiver Support Group at Sunrise Assisted Living
Alzheimer's support groups (Cozy Corner Adult Day Health Center, Radius Healthcare Center, Duxbury Senior Center)
1-800-AGE-INFO hotline for information about elder services in MA
24 hour Elder Abuse Hotline
Bay Path Rehabilitation and Nursing Center
Beacon Hospice
Caregiver Homes
Cranberry Hospice
Eldercare Locator to find elderly services in your area
Freedom Wheels

MassachusettsLongTermCare.org (to find long-term care facilities around MA)
Councils on Aging in each town
South Shore Visiting Nurses Association

Housing and Homelessness Services:
Housing Authorities in each town
Carolina Hill, Marshfield
Plymouth Area Coalition for the Homeless/ Pilgrim's Hope Shelter
Plymouth Redevelopment Authority (offers foreclosure counseling)
South Shore Community Action Council, Inc.
Safe Haven Shelter, Plymouth
Task Force For the Homeless—Plymouth
Habitat for Humanity of Greater Plymouth, Inc.
South Shore Housing

HIV/AIDS Services:
Catholic Charities
ACCESS Project at Jordan Hospital
Plymouth AIDS Support Services (PASS), a program of Health Imperatives

Mental Health Services:
Bay State Community Services
Bayview Associates
Brockton Area Multi Services (BAMSI)
Duxbury Counseling Services
High Point Treatment Center
National Organization of Parents of Murdered Children—southeast MA chapter
MADD (for people affected by drinking and driving)
Mass Bay Counseling
Northeast Health Services
Pembroke Hospital
Plymouth Center for Behavioral Health
Vinfen
Department of Mental Health
South Bay Mental Health
South Shore Mental Health

Disability Services:
Advocacy Plus parent resources
Brain Injury Association of Massachusetts (Wareham)
CommonHealth
Community Connections—Day Centers
Disabled Persons Protection Commission
Kennedy Donovan Center

MA Commission for the Deaf and Hard of Hearing (Southeast Regional Office, Plymouth)
MA Department of Developmental Services, Plymouth
Massachusetts Rehabilitation Commission
MA Technology Assistance Resource Team (MASSTART)
CommonHealth (insurance services for disabled)
North River Collaborative
South Bay Mental Health's Early Intervention Program
The Arc of Greater Plymouth
South Shore Therapies, Pembroke

Substance Use Services:
Alcoholics Anonymous
Alanon Family Groups of Massachusetts
Anchor House (Alcohol Treatment Program)
Habitat Management, Inc. (Wareham)
High Point Treatment Center
MA Substance Abuse Helpline
Smoking Quitters Program (out of Jordan Hospital)
South Bay Mental Health

Emergency Services
American Red Cross (Brockton)

Domestic Violence/Sexual Assault Crisis Services:
Victim Witness Program
SAFEPLAN (courts)
Office of the Attorney General: Victim Compensation
High Point Treatment Center's STOP Program
SANE program at Jordan Hospital
South Shore Women's Resource Center
Support group for survivors of sexual assault, Jordan Hospital

Maternal and Child Services
Baby Point—a program of Turning Point (Wareham, serves Carver)
Baird Center
Childbirth Education programs at Jordan Hospital and South Shore Hospital
Children SEE Program at South Shore Women's Center
Community Care for Kids
Depression After Delivery, Jordan Hospital
Department of Children and Families, Plymouth office
Healthy Families
Healthy Start
Head Start
Kennedy-Donovan Early Intervention

P.A.C.E. Child Care Works for childcare vouchers
Community Action Committee of Cape Cod and the Islands for childcare vouchers
South Shore Postpartum Support Network

<u>Nutrition Resources</u>
Department of Transitional Assistance—SNAP program, Plymouth office
Project Bread
Meals on Wheels
Plymouth WIC, a program of Health Imperatives

<u>Food Pantries</u>
Careworks Ministry, Kingston
Carver Emergency Food Pantry
Catholic Charities Plymouth
Christ Church Parish—Episcopal, Plymouth
Duxbury Interfaith Council
Halifax Helping Hands at Halifax U.C.C. Church
First Baptist Church, Hanover
Henry S. Newcomb Center, Hanover
Hanson Food Pantry, First Baptist Church
Marshfield Food Pantry (Congregational Church)
Our Lady of the Lake, Halifax
Pembroke Food Pantry (Pembroke Community Center)
Pilgrims Hope, Kingston
Plymouth Area Coalition for the Homeless Food Pantry
Rockland Food Pantry, First Congregational Church
Salvation Army Meal Program and Food Pantry
South Shore Community Action Council
Society of St. Vincent DePaul (Blessed Kateri, Father Sweeney Pantry, St. Peter's Parish)
St Joseph's Church, Kingston
St. Joseph's Church, Plympton
Thrifty Pilgrim—Catholic Charities: Plymouth Guild Food Pantry
Vineyard Christian Fellowship Church Food Pantry
Zion Lutheran Church

<u>Multi-Service Agencies:</u>
Bay State Community Services
Brockton Area Multi Services (BAMSI)
Department of Transitional Assistance
Catholic Charities South
Family Continuity Program—Emergency Response Network
The Key Program (Wareham)
Seven Hills Foundation (Bourne)
South Shore Mental Health

South Shore Community Action Council
United Way of Greater Plymouth County

Employment and Education/Career Development:
Curry College, Plymouth
Quincy College, Plymouth
Plymouth Career Center (One-Stop Career Center, Plymouth)
My Turn, Inc.
Literacy Program of Greater Plymouth

Financial Assistance (Medical or Household Expenses):
Bay State Gas, Southeastern Massachusetts
Citizens Energy Oil Heat Program
Catastrophic Illness in Children Relief Fund (Boston, medical)
EverCare (medical, surgery insurance)
Good Neighbor Energy Fund—a program of Salvation Army
Kingston Residents Financial Assistance Program
Lend-a-Hand Society
Modest Needs
Mass Heat (provides information on fuel assistance)

Art Complex Museum, Duxbury

Farmland, Pembroke

Appendix A: Data Sources Used in This Report

The Massachusetts Department of Public Health offers consumers an opportunity for access to its data through the online Massachusetts Community Information Profile (MassCHIP) system. This system provides either "Instant Topics," which are pre-analyzed reports on a variety of topics available from the MassCHIP website, or "Custom Reports", which are user-generated data queries. The Custom Reports option was used in this assessment to generate the most up-to-date data for the CHNA.

Below are descriptions of each data set used to generate the data available in this report. The descriptions of the data sets can also be found on the MassCHIP website, www.masschip.state.ma.us.

Mortality Dataset*: Deaths by cause*

Births Dataset*: Birth data such as number of births, prenatal care, maternal age and education, and congenital anomalies*

Substance Use Dataset: *Inpatient treatment admissions and admissions due to injection drug use by primary substance categories.* [Note: "year" as used in this dataset refers to fiscal year]

Cancer Incidence: *New cases of 28 different types of cancers*

Hospital discharges: *Hospital discharges by disease*

Emergency visits: *Hospital emergency department visits by disease*

Behavioral Risk Factor Surveillance System: *Health behaviors and risk factors related to areas such as AIDS, alcohol, nutrition, cancer, smoking, and weight.* [A statewide, landline-only telephone survey of adults age 18 and older that takes place every calendar year and asks questions relating to health behaviors, chronic diseases, and risk factors.]

Demographics were obtained from the **U.S. Census Bureau.** (http://factfinder.census.gov.) The most recent nationwide census was conducted in 2010. The total population estimates for each town in the CHNA are from the 2010 United States Census. Additional numbers on such subjects as housing and access to transportation were gleaned from the five-year estimates given by the American Community Survey.

Appendix B: Common Statistical Definitions

The Asthma Prevention and Control Program at the Massachusetts Department of Public Health provides excellent, accessible explanations of commonly-used statistical terms.

95% confidence interval: *"Confidence intervals help determine whether a difference between two groups is statistically significant. Since all data provided in* [this report] *are estimates, there is some margin of error associated with these estimates; confidence intervals give a measure of how large that margin of error is. A* [95% confidence interval] *means that the true value of the measure falls within the range given by the confidence interval 95% of the time. The difference between two groups is statistically significant if the 95% confidence intervals surrounding these two estimates do not overlap.*

For example, if the [percentage of people with] *asthma in town A is 8.3% (95% CI: 7.4-9.2%) and the* [percentage of people with] *asthma in town B is 9.8% (95% CI: 9.5-10.1%), the difference in asthma between towns A and B is statistically significant because the two confidence intervals do not overlap. However, if town C has a* [percentage of people with asthma that is] *9.8% (95% CI: 8.8-10.8%), the difference in asthma between towns A and C is not statistically significant because these two confidence intervals do overlap. This example shows that even if two towns have the same estimated* [percentages of people with] *asthma (both B and C have an estimated* [percentage] *of 9.8%), it is the confidence interval surrounding these estimates that determines a statistically significant difference with the estimated* [percentage of people with] *asthma in town A."*

Age-adjusted rate:*"A procedure for adjusting rates, designed to minimize the effects of differences in age distributions when comparing rates for different populations. Age-adjusted rates are usually expressed per 100,000 persons. For standardization within MassCHIP the standard population used is the 2000 US population."*[6]

Crude rate: Either the number of people experiencing an event per 100,000 population or the number of events (for example, treatment admissions) per 100,000 population.

Table B-1 on the next page gives formal definitions for statistical terms used in the report:

Table B-1: Definitions of Commonly Used Statistical Terms	
Term	**Definition**
95% Confidence interval	An estimated range of values that is likely to include an unknown population parameter. The true value of an estimate falls between the upper and lower limit of the interval 95% of the time. If the confidence intervals of the catchment area and the state did not overlap, then the difference was considered statistically significant.
Age-adjusted rate	A statistical method allowing comparisons of populations that takes into account age-distribution differences between populations. Age-adjusting takes the 2000 US population distribution and applies it to other time periods under consideration. This assures that such rates do not reflect any changes in the population age distribution.
Crude rate	The ratio of the number of people in which the event of interest happens in a specified time period to the size of the population who may experience this event during the same time period without adjusting for other factors such as age or sex.
All definitions are from the National Cancer Institute's Glossary of Statistical Terms, which can be found at http://seer.cancer.gov/cgi-bin/glossary/glossary.pl.	

Archival data should be interpreted with caution, as limitations exist for each data set used in the analysis. For example, one of the data sets used in this report contained treatment admissions for facilities funded by the Bureau of Substance Abuse Services. This dataset does not contain admissions to private facilities, and thus may not represent the true extent of substance use present in the area. In addition, towns have vastly different population sizes, and admission rates may fluctuate from year to year in towns with smaller populations. Where possible, three years of data were analyzed together to provide more stable estimates; however, the stability of these estimates may be substantially smaller than the stability of estimates for the state overall due to the smaller population of these areas. For more details about each data set, please see Appendix A.

Rates were calculated using the population estimates given by MassCHIP, and thus may overestimate or underestimate the true rate depending on the population changes in a town from year to year. For example, if the population of a town were actually larger than the MassCHIP estimate, then the rate would be overestimated in this report. If the population of a town were smaller than the MassCHIP estimate, then the rate would be underestimated in this report.

Archival data should also be interpreted with caution due to the fact that certain illnesses occur at small numbers at the local level, and therefore, large fluctuations in rates can occur with relatively small fluctuations in numbers of cases from year to year. For example, a town like Plympton (estimated population 2,820) might have a greater fluctuation in crude treatment admission rates due to 100 additional admissions in a calendar year than Plymouth (estimated population 56,468).This research should be used to indicate only where potential health problems may exist in these communities; further research is necessary to determine the extent of any

potential health problems. The archival data analysis in this report contains no inferences about causality.

Appendix C: The CHNA 23 Community Health Assessment Subcommittee

In April 2010, the CHNA steering committee voted to form a subcommittee that would handle matters related to the assessment. Membership for this subcommittee was recruited from the general CHNA membership at its May and June meetings, and the first meeting of this subcommittee took place on June 15. The subcommittee met approximately once per month throughout the entire assessment process.

The completion of this assessment would not have been possible without the advice, guidance, and dedication of this subcommittee. Listed below are the members of this subcommittee.

CHNA 23 Community Health Assessment Subcommittee Members

Karen Fabrizio, Kids Kastle Day Care
Angela Harrington, Coordinator of Interpreter Services, Jordan Hospital
Peg Holda, South Shore Hospital
Bobbi Martino, The ARC of Greater Plymouth
Amy Mayberry, Carver Resident
Marion Oxenhorn, High Point Treatment Center

Appendix D: Community Input Survey

To solicit community feedback, the CHNA assessment subcommittee released a community input survey. Community residents had two options for completing the survey: printed postcards or online. Postcards were distributed in CHNA communities in such places including but not limited to: food pantries, physicians' offices, town halls, and human service agencies. Respondents were instructed to drop the completed postcard in the mail. The postage was prepaid by South Shore Hospital. Online survey respondents submitted their responses on the website surveymonkey.com. Below are copies of the front and back of the CHNA assessment postcards. The postcard was developed by the CHNA 23 Community Health Assessment Subcommittee and pilot tested in August and September 2010. The final version of the survey was released into the community in December 2010 and February 2011.

CHNA members distributed these cards in various agencies within the CHNA towns, with the postage prepaid and the cards returned to South Shore Hospital. The CHNA would like to thank South Shore Hospital for graciously volunteering its printing and mailing departments for this assessment.

Community Health Network Area (CHNA) 23

South Shore Community Partners in Prevention
is planning to invest **thousands of dollars**
to build healthier communities. **YOU** can help decide how!

Health is more than what takes place at the doctor's office. Health is also something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink. The more we see health this way, the more opportunities we have to improve it.* Your input would be appreciated as part of a community health assessment. Please tell us what the three most important health-related issues are for your family and/or community. Please be as specific as you can!

1. ______________________

2. ______________________

3. ______________________

Your Town **Your Gender** **Your Age**

A Community Health Network Area (CHNA) is a local coalition of public, non-profit, and private sectors working together to build healthier communities in Massachusetts. CHNA 23 represents the communities of **Carver**, **Duxbury**, **Halifax**, **Hanover**, **Hanson**, **Kingston**, **Marshfield**, **Pembroke**, **Plymouth**, **Plympton**, and **Rockland**.
For more information, visit www.preventionworks.org and click on CHNA or call Bonnie at 508-583-2350 ext. 266.
*Copyright 2010 Robert Wood Johnson Foundation. Data collection courtesy of South Shore Hospital.

Please return postcard by March 15, 2011
Add your return address here if you would like to be entered into a drawing to win a $50 VISA gift card.

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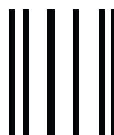


NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

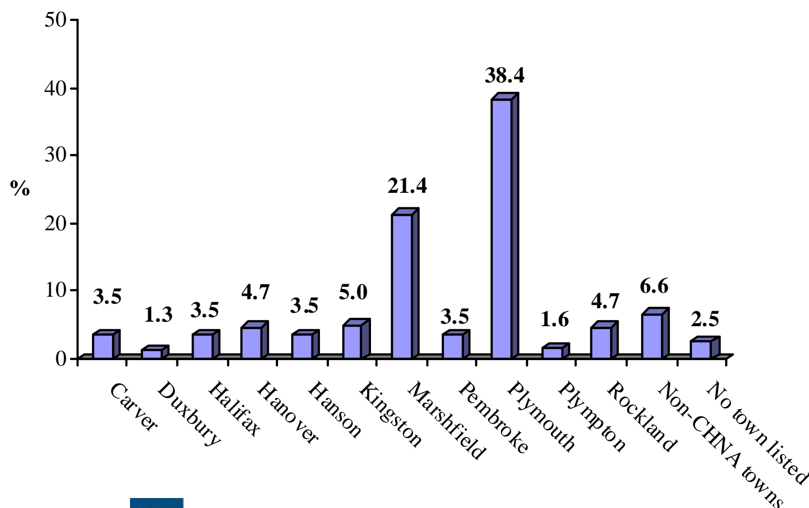
BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 21593 BOSTON MA

POSTAGE WILL BE PAID BY ADDRESSEE

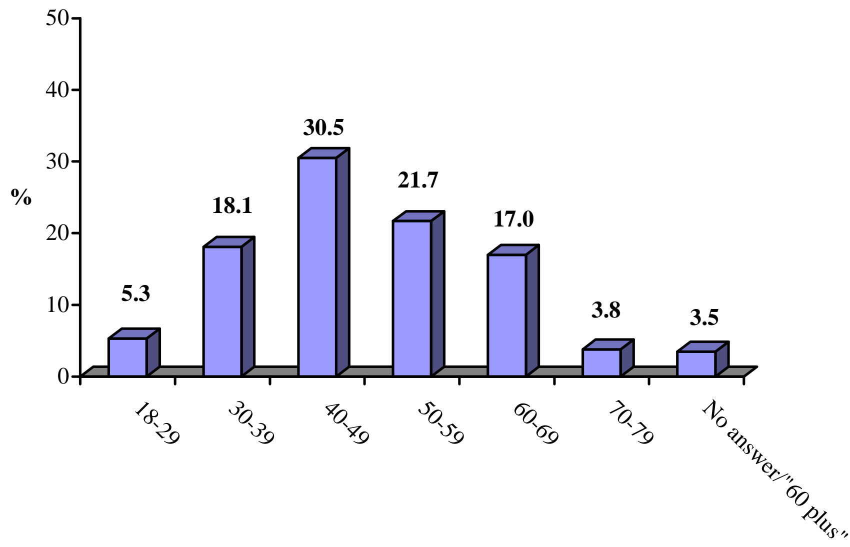
SOUTH SHORE HOSPITAL
55 FOGG RD
SOUTH WEYMOUTH MA 02190-9954

Below is the distribution of survey responses by age, by sex, and by town.

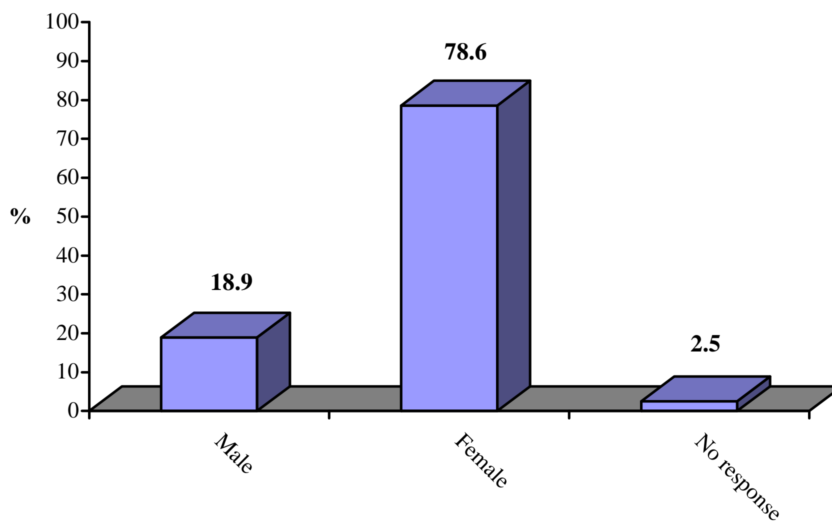
Town Distribution of Survey Respondents, Online and Mail (N=318)



Age Distribution of Survey Respondents, Online and Mail (N=318)



Sex Distribution of Survey Respondents, Online and Mail (N=318)



Appendix E: Scripts Used for Key Informant Interviews

Key Informant Interview Script for Race/Ethnicity Health Disparities

Thank you for taking time to talk to me today about **race/ethnicity health disparities** in health and health care in the Plymouth area. My name is Bonnie and I am the Community Health Analyst with the Southeast Center for Healthy Communities (SCHC), which is a program of Health Imperatives in Brockton. I am here today on behalf of the South Shore Community Partners in Prevention. We're a group of health and social service organizations working to improve the health of residents of the towns in this area. Right now, our group is in the process of conducting a community health assessment, which means that we're trying to talk to community members about health problems in their communities so we can find out what the most common problems are. For the purpose of this conversation, we have a very broad definition of health. Health is more than what takes place at the doctor's office. Health is also something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink.** When we collect this information from community residents and put it all together, it will help us to decide what the health priorities of the area should be. Our group will then be able to fund projects related to these priorities.

I want to emphasize that the discussion today will remain confidential. The results of this discussion, which will be reported thematically, will be used as part of our health assessment process to determine how we can best address health care needs in the area. Your name will never be shared or linked with anything that you say. I want to remind you that I am audiotaping the discussion so I can remember the important ideas you have. The tape will give us the opportunity to review what you said at a later time when we prepare a summary report.

Please tell me your first name, where you work, and how long you have worked there. Do you also live in this town?

I would like to begin by talking about the population you currently work with.

1. Within the population that you see, who are you currently serving? What is the profile of the people you are currently seeing?

Prompt:
Town/City of Residence
Race/ethnicity
Primary language
Age
Gender
Immigration status (new immigrants, undocumented, acculturation issues)
Socioeconomic status
Disability

Insurance status
Relationship status
Sexual orientation
Housing status
As you know, our group contacted you because we were particularly interested in your experiences working knowledge of **race/ethnicity health disparities.** The following questions concern your experiences with **these disparities** in the Plymouth area.

2. What are the largest health problems among the populations that you serve? What do you know of how these problems affect various races/ethnicities differently in this area/town?
Prompt:
Asthma
Diabetes
Cancer
Substance use
Lack of exercise
Poor nutrition
Access to healthier foods
Obesity
High blood pressure
High cholesterol
Domestic violence
Childhood health problems

3. What do you think causes these problems?
Prompt:
Socioeconomic status
Stress related to the economy
Housing quality
Community safety issues
Lack of access to healthy foods
Lack of access to places to exercise

4. From your knowledge of the area, are there people who are not receiving health care services they might need? Who are these people?
Prompts:
Non-English-speaking population
Persons with intellectual/developmental disabilities
People who are not U.S. citizens
Uninsured
Underinsured (for example, people who have insurance but their cost for doctor's visits or prescriptions is still very expensive)
People working multiple jobs
People who partake in heavy substance use

The elder population
Teenagers
Young adults

5. What are the difficulties faced by the populations you serve when trying to access health care? What do you think could be done about these problems?

6. What about the setup of the Plymouth area helps the people you work with to stay healthy?

7. What about the setup of the Plymouth area makes it difficult for the people you work with to stay healthy?

8. What additional resources would you like to see in the Plymouth area for the population that you work with?

Do you have anything else you would like to add to today's discussion?

This information will be used as part of our community health assessment process to determine how we can best address health care needs in the region. Once the report is completed, the South Shore Community Partners in Prevention plans to use this information to target our funding toward the health areas of greatest need in the communities we serve. Thank you very much for your participation.

****Wording adapted from the Robert Wood Johnson Foundation. Copyright 2010, Robert Wood Johnson Foundation.**

Key Informant Interview Script for Health Issues or Specific Populations

Thank you for taking time to talk to me today about your experiences working with **[insert health issue]** in the Plymouth area. My name is Bonnie and I am the Community Health Analyst with the Southeast Center for Healthy Communities (SCHC), which is a program of Health Imperatives in Brockton. I am here today on behalf of the South Shore Community Partners in Prevention. We're a group of health and social service organizations working to improve the health of residents of the towns in this area. Right now, our group is in the process of conducting a community health assessment, which means that we're trying to talk to community members about health problems in their communities so we can find out what the most common problems are. For the purpose of this conversation, we have a very broad definition of health. Health is more than what takes place at the doctor's office. Health is also something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink.** When we collect this information from community residents and put it all together, it will help us to decide what the health priorities of the area should be. Our group will then be able to fund projects related to these priorities.

I want to emphasize that the discussion today will remain confidential. The results of this discussion, which will be reported thematically, will be used as part of our health assessment process to determine how we can best address health care needs in the area. Your name will never be shared or linked with anything that you say. I want to remind you that I am audiotaping the discussion so I can remember the important ideas you have. The tape will give us the opportunity to review what you said at a later time when we prepare a summary report.

Please tell me your first name, where you work, and how long you have worked there. Do you also live in this town?

I would like to begin by talking about the population you currently work with.

1. Within the population that you see, who are you currently serving? What is the profile of the people you are currently seeing?
Prompt:
Town/City of Residence
Race/ethnicity
Primary language
Age
Gender
Immigration status (new immigrants, undocumented, acculturation issues)
Socioeconomic status
Disability
Insurance status
Relationship status
Sexual orientation
Housing status

As you know, our group contacted you because we were particularly interested in your experiences working with **[health issue or specific population].** The following questions concern your experiences with **[health issue or specific population.]**

[if asking about specific health issue, ask question 2]:
2. Which populations does **[health issue]** tend to affect?
Prompt:
Race/ethnicity
Age
Gender
Socioeconomic status
Disability
Insurance status

3. Are there situations where **[people with health problem/specific population]** need to receive medical care but do not seek care? Why?
Prompt:
Cost, even if respondent is insured
Did not perceive illness as serious
Concerned about medical provider judging behavior
Transportation
Insurance coverage
No providers who will accept Mass Health Insured Clients
Wait times for appointments
Could not find appointments that fit schedule
Lack of relationship with physician/medical provider
Perceived seriousness of illnesses
Language barriers
Cultural barriers
Environment of hospital or physician's office
Does not desire preventive care; only visits doctor "when sick"
Mental/behavioral health—negative connotations to seeking mental health services

4. What about the setup of the Plymouth area helps **[people with health issue/ specific population]** to stay healthy?

5. What about the setup of the Plymouth area makes it difficult for people with **[people with health issue/ specific population]** to stay healthy?

6. What further resources would you like to see in the community for people with **[people with health issue/ specific population?]**

Do you have anything else you would like to add to today's discussion?

This information will be used as part of our community health assessment process to determine how we can best address health care needs in the region. Once the report is completed, the South Shore Community Partners in Prevention plans to use this information to target our funding toward the health areas of greatest need in the communities we serve. Thank you very much for your participation.

****Wording adapted from the Robert Wood Johnson Foundation. Copyright 2010, Robert Wood Johnson Foundation.**

Appendix F: Community Profiles, CHNA 23 Cities and Towns

	Carver	Duxbury	Halifax	Hanover	Hanson
Total Population (count)	**11,509**	**15,059**	**7,518**	**13,879**	**10,209**
Race/Ethnicity (percent)					
One race:					
White	95.6	97.3	97.0	96.5	96.5
Black or African American	1.2	0.4	0.6	0.8	1.0
American Indian/Alaska Native	0.2	0.1	0.1	0.1	0.0
Asian	0.4	1.0	0.6	1.2	0.5
Native Hawaiian or Other Pacific Islander	0.0	0.0	0.0	0.0	0.0
Some other race	1.0	0.4	0.3	0.5	0.6
Two or more races	1.7	0.8	1.4	0.9	1.4
Hispanic/Latino (any race)	1.1	1.2	1.1	0.9	0.9
With a disability, age 5+ (%)	21.9	11.2	20.7	9.8	13.2
Education Level, population age 25 and older (percent)					
Less than 9th grade	2.6	0.3	1.7	1.1	1.2
9-12 grade, no diploma	8.5	0.6	4.2	3.0	5.9
High school grad/GED	38.4	11.1	41.8	26.7	37.6
Some college	18.5	13.2	18.9	15.4	17.7
Associate's degree	10.5	7.2	11.0	9.9	12.4
Bachelor's degree	15.9	41.2	13.3	28.9	18.3
Graduate/professional degree	5.6	26.4	9.1	15.0	6.9
Born outside U.S. (percent)	2.4	2.0	1.3	4.0	3.1
Below poverty level (percent)					
Individuals below poverty level	4.3	2.8	7.0	3.6	2.6
Age 65+ below 100% poverty level	5.7	7.0	16.2	9.6	4.5

Estimates from U.S. Census 2010, Census 2000, and the American Community Survey, 2005-2009

	Kingston	Marshfield	Pembroke	Plymouth	Plympton	Rockland
Total Population (count)	**12,629**	**25,132**	**17,837**	**56,468**	**2,820**	**17,489**
Race/Ethnicity (percent)						
One race:						
White	96.1	96.8	96.8	93.8	96.8	92.0
Black or African American	1.1	0.4	0.6	2.0	0.9	2.6
American Indian/Alaska Native	0.1	0.2	0.2	0.3	0.3	0.2
Asian	0.9	0.7	1.0	0.9	0.8	1.1
Native Hawaiian or Other Pacific Islander	0.0	0.0	0.0	0.0	0.0	0.0
Some other race	0.5	0.8	0.4	1.1	0.3	2.2
Two or more races	1.3	1.1	1.0	1.7	1.0	1.9
Hispanic/Latino (any race)	1.1	1.3	1.1	1.8	1.3	2.0
With a disability, age 5+ (%)	18.7	15.8	15.9	16.7	11.1	17.6
Education Level, population age 25 and older (percent)						
Less than 9th grade	2.4	1.0	1.5	2.0	5.1	2.2
9-12 grade, no diploma	4.0	2.2	4.4	5.8	7.4	6.9
High school grad/GED	33.8	24.9	33.1	29.8	32.0	37.9
Some college	14.0	17.0	19.8	21.4	20.6	20.8
Associate's degree	10.9	10.1	8.5	10.2	7.4	11.4
Bachelor's degree	24.1	29.4	24.9	20.1	17.0	15.0
Graduate/professional degree	10.8	15.3	7.8	10.8	10.3	5.8
Born outside U.S. (percent)	3.0	3.6	2.3	4.5	1.7	9.1
Below poverty level (percent)						
Individuals below poverty level	5.4	4.6	3.5	5.5	3.7	9.1
Age 65+ below 100% poverty level	12.5	10.0	1.5	6.8	11.7	8.6

Estimates from U.S. Census 2010, Census 2000, and the American Community Survey, 2005-2009

Endnotes

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[i] "High-risk" is defined by the WIC program as a town that ranked in the top 1/3 according to the WIC needs assessment from 2009. (See *Massachusetts WIC Program Needs Assessment Data for MDPH CHNAs,* August 2009). For more information about general WIC needs assessment methodology, please see http://www.eccs.hrsa.gov/Resources/docs/MAHVMethodologyandRanking_Part1.pdf

[ii] Kim DY Curtis G et al (2002). Relation between housing age, housing value, and childhood blood lead levels in Jefferson County, KY. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447158/ on November 2, 2010.

[iii] The U.S. Census defines a disability as follows:
The data on disability status were derived from answers to long-form questionnaire items 16 and 17.
Item 16 was a two-part question that asked about the existence of the following long-lasting conditions:
(a) blindness, deafness, or a severe vision or hearing impairment, (sensory disability) and
(b) a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying (physical disability). Item 16 was asked of a sample of the population five years old and over.
Item 17 was a four-part question that asked if the individual had a physical, mental, or emotional condition lasting 6 months or more that made it difficult to perform certain activities. The four activity categories were:
(a) learning, remembering, or concentrating (mental disability);
(b) dressing, bathing, or getting around inside the home (self-care disability);
(c) going outside the home alone to shop or visit a doctor's office (going outside the home disability); and
(d) working at a job or business (employment disability). Categories 17a and 17b were asked of a sample of the population five years old and over; 17c and 17d were asked of a sample of the population 16 years old and over.
For data products which use the items individually, the following terms are used: sensory disability for 16a, physical disability for 16b, mental disability for 17a, self-care disability for 17b, going outside the home disability for 17c, and employment disability for 17d.
For data products which use a disability status indicator, individuals were classified as having a disability if any of the following three conditions was true:
(1) they were five years old and over and had a response of "yes" to a sensory, physical, mental or self-care disability;
(2) they were 16 years old and over and had a response of "yes" to going outside the home disability; or
(3) they were 16 to 64 years old and had a response of "yes" to employment disability.

[iv] The state of Massachusetts definition of disability, which is used for BRFSS data, is as follows: "Disability defined as having one or more of the following conditions for at least one year: (1) impairment or health problem that limited activities or caused cognitive difficulties; (2) used special equipment or required help from others to get around; or (3) reported a disability of any kind."
McKenna M. Tinsley L et al, (2010). *A Profile of Health Among Massachusetts Adults, 2009.* Retrieved December 8, 2010, from
http://www.mass.gov/?pageID=eohhs2terminal&L=4&L0=Home&L1=Consumer&L2=Community+Health+and+Safety&L3=Behavioral+Risk+Factor+Surveillance&sid=Eeohhs2&b=terminalcontent&f=dph_behavioral_risk_c_statewide_rpt_present&csid=Eeohhs2

[iv] Rothenbach Research and Consulting, LLC. *Communities that Care Youth Survey: Plymouth Public Schools.* Survey Administration: Spring 2010.

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