

# The Greater Brockton Community Health Network Area

Abington / Avon / Bridgewater / Brockton / East  
Bridgewater / Easton / Holbrook / Stoughton / West  
Bridgewater / Whitman



## Community Health Needs Assessment for the Greater Brockton CHNA

---

Prepared by the Stoughton Youth Commission

**December 2013**

# Acknowledgements

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

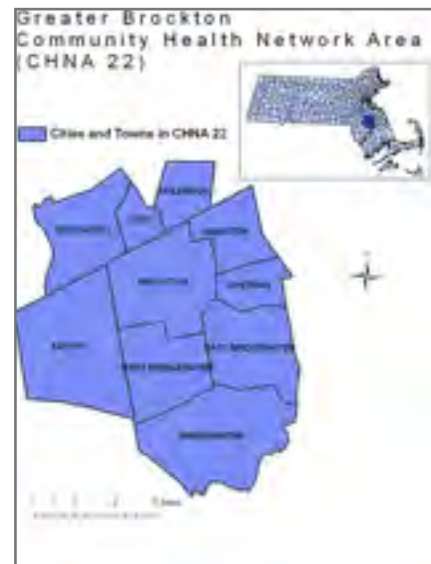
# Introduction

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 Greater Brockton CHNA (CHNA 22) serves the towns of Abington, Avon, Bridgewater, East Bridgewater, Easton, Holbrook, Stoughton, West Bridgewater, and Whitman. When the term "CHNA" is used in this report, it refers to the Greater Brockton CHNA unless otherwise specified.

The mission of CHNA 22 is to work toward healthier communities by promoting collaboration between CHNA 22 partners, providing support to local health initiatives and prevention programs, and educating and increasing awareness of local identified health issues throughout the communities it serves.

*The guiding principles of the CHNA 22 include:*

- Diversity Awareness
- Collaboration
- Continuity of CHNA 22
- Decrease duplication of services
- Prevention focus
- Support for all 10 CHNA 22 communities
- Meet community needs
- Communication



With the mission and CHNA 22 guiding principles in mind, the Stoughton Youth Commission conducted this Community Health Needs Assessment to uncover community health needs and issues and determine gaps in community health programming. This assessment was developed as a follow up to the CHNA 22 assessment that was completed in 2010. In 2011, following that assessment, the CHNA 22 Steering Committee prioritized four health priorities for action in the CHNA 22 area: Asthma; Nutrition and Fitness; Oral Health and Substance Abuse. This report represents a more focused look at those four areas.

# Social Determinants of Health

The Healthy People 2020 Report defines Social Determinants of Health as: “conditions in the environments in which people are born, live, learn, work, play, worship and age that affect a wide range of health functioning and quality of life outcomes and risks.” Our health is influenced, in part social and physical factors in the environment.<sup>1</sup>

In this report you find data related to some of the social determinants of health.

Below is a table that links the data in this report that is related to some of the Social Determinants of Health.

Table of Selected Indicators of Social Determinants of Health<sup>2</sup>

Social Determinant	Data	Location in Report
Socioeconomic Conditions	-Individuals below the poverty line	Demographics
Language / Literacy	-Percentage of those that speak a language other than English -Percentage of those that speak a language other than English that “speak English less than very well”	Demographics
Access to educational, economic and job opportunities	-Percentage of population with a high school education or higher	Demographics
Housing and community design	-Percentage of houses built prior to 1939, CHNA 22 by community	Asthma
Exposure to toxins or other hazards in the environment	-Environmental Justice Blocks -Focus Group Themes	Asthma
“Built Environment” (road, bicycle lanes, sidewalks)	-Focus Group Themes	Nutrition & Fitness
Availability of community-based resources for recreational activities	-Gyms and Fitness Centers	Nutrition & Fitness
Availability of resources necessary to meet basic needs (safe places to live, local access to healthy food)	-Food Deserts -Farmer’s Markets -Key Informants -Focus Group Themese	Nutrition & Fitness

# Policy, Systems, and Environmental Changes

CHNA 22's aim is to support groups and organizations that endeavor to promote sustainable changes through policy, systems change, and environmental strategies. Such changes are expected to have a positive and enduring impact on one or more of CHNA 22's Health Priorities for Action.

## Policy Change

- Changes in laws, local ordinances, mandates, regulations, etc.
- Can be formal or informal
- Can happen at state, organizational, or community level

## Systems Change

- Changes that impact all elements of an institution, organization, or system
- Systems may include: transportation, hospitals, etc.

## Environmental Change

- Changes to economic, social, or physical environment
- Addressing community norms, social changes

*For additional definitions and examples related to Policy, Systems and Environmental Changes please visit the [CHNA 22 website](#).*

# Methodology

From February to December of 2013, The Stoughton Youth Commission conducted this Community Health Needs Assessment for CHNA 22 with the goal of identifying unmet community health needs, vulnerable populations, and gaps in existing community health services. In this version of the Community Health Needs Assessment, CHNA 22 focused upon the following four priority areas - those identified to be of greatest concern in 2011 based on a prior community health assessment. Those four areas of need are:

- Asthma
- Nutrition and Fitness
- Oral Health
- Substance Abuse

This update of the Community Health Needs Assessment utilized a three-pronged approach to uncover the state of the health of Brockton and its surrounding towns:

1. Conducting key informant interviews with people who work within the CHNA cities and towns (including Brockton) to determine how the needs of residents are met both in and out of the city.
2. Analyzing and updating existing data (MassCHIP, Census data and other resources) to determine how health outcomes in the City of Brockton and surrounding towns differ from each other and the state overall, as well as changes from the previous Community Health Needs Assessment to begin to develop a baseline for trend data in the future.
3. Conducting focus groups within and outside of Brockton to examine their perceptions regarding the four aforementioned health topics and their impact in the service area.

## Key Informant Interviews:

- At least one key informant was interviewed in every CHNA 22 community.
- A total of 23 key informant interviews were conducted.
- Key informants were identified by the Community Health Assessment Subcommittee and were selected based on their likelihood to have information on one or more of the four priority areas for this report.
- Organizations targeted for interviews included local substance abuse and violence coalitions, visiting nurses associations, school personnel, boards of health, YMCA, Councils on Aging, and others.

# Methodology

## Focus Groups

- A total of four focus groups were conducted between September 2013 and December 2013.
- At least one focus group was held on each priority area.
- In two cases several topics were included in the focus group discussion as the groups interviewed were intended to represent the broader community.
- The substance abuse focus group was conducted with a group of men in recovery, as the intention was to interview a group with deep knowledge of a sensitive issue who were willing to talk about it.
- The asthma focus group was conducted with a group of individuals related to the Greater Brockton Asthma coalition, as not everyone in the general public is affected by asthma.
- Due to the fact that nutrition/fitness and oral health are relevant to all community members, those focus groups were intend to draw from the general population and were therefore held at a YMCA in East Bridgewater and a Church in Brockton to attempt to draw from a diverse group both geographically and otherwise.

Topic	Substance Abuse	Nutrition/Fitness & Oral Health	Asthma	Asthma, Nutrition/ Fitness, & Oral Health
Date of Group	Sept. 16, 2013	Sept. 27, 2013	October 23, 2013	December 10, 2013
Host Venue	Men's Sober House, Brockton	East Bridgewater YMCA	Self-Help, Inc., Brockton	Trinity Baptist Church, Brockton
Number of Attendees	11	5	4	10

# Report Sections

Findings from each section of the assessment contribute to the overall picture of area health needs in different ways. Examining results of key informant interviews can offer the CHNA a perspective on how the residents of the CHNA towns (including Brockton) perceive local challenges and assets related to the four priority health areas. Analyzing archival data will allow the CHNA to determine whether hospitalization, emergency department utilization, or mortality in this region for conditions such as diabetes, asthma, or substance abuse are comparable to state levels. Reviewing focus group responses can give the CHNA an indication of how community residents experience health care services, perceptions about these largest health problems, risk behaviors in these communities, and problems with health care access. The CHNA will also be able to examine which issues related to asthma, nutrition and fitness, oral health, and substance abuse cut across communities and which matters may be community-specific.

The report is divided into five sections, plus an appendix. The first section is selected demographic information for the the communities in the Greater Brockton CHNA. The following 4 sections are focused on each of the four priority areas: asthma, nutrition and fitness, oral health and substance abuse.

Each of the four priority area sections are divided into several parts:

- 1) Introduction to the section, including the rationale in 2011 for its inclusion as a priority area
- 2) Definitions of terms and acronyms that may be unfamiliar to the reader
- 3) Graphs and tables representing the most recent data available collected through MassChip and other data sources
- 4) Quotes and summary statements from key informants relating to the topic
- 5) Summaries and quotes from findings related to the focus groups
- 6) Examples of local policy, systems and environmental strategies to address the issue (where known)
- 7) Conclusions about the findings and areas of need for further assessment
- 8) Endnotes with the references for citations included in that section



# Endnotes

1-2. Healthy People 2020 (2014). Social Determinants of Health. Retrieved 2014.  
<http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx>

# Appendix: Focus Group Consent Form

Dear Prospective Participant:

You have been chosen to participate in a focus group backed by the Greater Brockton Community Health Network Area (CHNA 22), a coalition of public, private and nonprofit organizations located within Southeastern Massachusetts. The purpose of this focus group is to collect qualitative information surrounding the subjects of oral health, nutrition and fitness, asthma, and substance abuse among the ten CHNA communities.

The Mission of the Greater Brockton Community Health Network Area and its Health Assessment Subcommittee are to gather information about the health and well-being of residents of the communities within the Greater Brockton CHNA and determine the areas of greatest need. This information will be used to assist the CHNA in directing resources toward primary areas that address the four focus areas.

**Your Information:** This research project employs focus groups as a form of data collection. Consequently, your identity will not be anonymous, but it will be confidential. All information regarding subjects and their subsequent responses will be kept in a safe location and only shared among the facilitators and researchers. Please note that the audio content of this session will be recorded, but the audio and subsequent transcripts will not be shared. The information will be compiled with that from other focus groups and shared only in a way that individual participants cannot be identified.

**Your Participation is Voluntary:** Upon agreeing to participate in this focus group, please understand that your choice to continue taking part in this discussion is at your discretion, and yours alone. Thus, you may choose to cease cooperation at any time. Risks in participating in this focus group are minimal to nonexistent.

**Expectations:** This study involves focus groups as a form of data collection. All participants will be asked a series of about 5-8 questions for each topic, which concern issues and behaviors surrounding oral health, nutrition and fitness, and asthma. Participants may also be asked to elaborate from time to time to give the interviewer more insight into the topic at hand and to form sound conclusions upon the completion of this focus group. As a participant, the facilitators will give you ample time to answer the questions posed to you.

*Your choice to take part in this study will help not only the facilitators, researchers, and citizens understand the impact that oral health, nutrition and fitness, and asthma have upon the CHNA's ten communities.*

By signing your name below, you agree to participate in this study. *If you have any questions, please do not hesitate to contact Stephanie Patton (spatton@stoughton-ma.gov) Larissa Swenson (lswenson88@hotmail.com), respectively.*

# Appendix: Focus Group Script

This script was read aloud to the participants prior to the start of each focus group.

*"Thank you for taking the time to talk to us today about your experiences in Brockton. I am Stephanie Patton and I am the Substance Abuse Prevention Coordinator for Stoughton OASIS (Organizing Against Substances in Stoughton), and I am Larissa Swenson, the graduate intern for the Community Health Needs Assessment. We are here today on behalf of the Greater Brockton Community Health Network Area (or CHNA for short). We are a group of social service and health organizations working to improve the health of residents of the towns in this area. Right now, our group is involved in a process called a community health assessment, which means that we're trying to talk to groups of community members about health problems in their communities so we can find out what is going on in the fields of substance abuse, oral health, asthma, and nutrition and fitness. When we collect this information from community residents and put it all together, the CHNA will be able to fund projects related to these four focus areas.*

*We 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 the CHNA's health assessment process to determine how it can best address health care needs in the area. Your names will never be shared or linked with anything that you say. We want to likewise remind you that we are audio-taping the discussion so that we will remember your important and helpful responses. The recording will give us the opportunity to review what you said at a later time when we prepare a summary report."*

# Appendix: Focus Group Questions

## **Substance Abuse Questions:**

1. What circumstances have made it more likely for you to use / abuse alcohol and other drugs?
2. What circumstances have made it less likely for you to use / abuse alcohol and other drugs?
3. What challenges have you experienced obtaining substance abuse treatment?
4. What do you find most challenging about recovery?
5. What aspects of recovery are the easiest?
6. What are you most worried about throughout your recovery?
7. What else would like to tell us.

## **Asthma Questions:**

1. How has asthma affected yours or a family member's life?
2. What kind of things make your asthma worse?
3. What aspects of your asthma do you find easiest to manage?
4. What aspects of your asthma do you find most difficult to manage?
5. How has your doctor aided you in treating / managing your asthma?
6. Has your doctor referred you to an asthma / lung specialist?
7. How do you manage your asthma?
8. Where do you get info on how to manage your asthma?

## **Nutrition and Fitness:**

1. What makes it easy to obtain healthy foods?
2. What are the barriers in obtaining / purchasing fresh produce and healthy foods?
3. What has made it easy to be physically active in within your community?
4. What has made it difficult to attain sufficient levels of physical activity in your community?
5. What make it easier to eat healthier?
6. What are you most worried about throughout your recovery?

## **Oral Health:**

1. In what ways is oral health important to your family?
2. What have been the barriers in obtaining oral health care for you / your family?
3. In what ways have oral health issues prevented you from regular activities (like school / work)? Please explain.
4. When faced with an oral health issue, through what avenues do you seek relief?
5. What else can you tell us about oral health?

# Appendix: Community Health Needs Assessment Subcommittee

In February 2013, 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. The subcommittee met approximately six times during the 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, mission statement, and vision statement of this subcommittee.

## Greater Brockton CHNA Community Health Needs Assessment Subcommittee Members

John Eastman, Self-Help, Inc.  
Stephanie Patton, Stoughton OASIS/Youth Commission  
Hilary Lovell, Signature Healthcare Brockton Hospital  
Alan MacDonald, South Shore Hospital  
Larissa Swenson, Bridgewater State University  
Paulo Gomes / Monique Allemande, Stewart Good Samaritan Hospital

## Mission of the Greater Brockton CHNA Community Health Needs Assessment Subcommittee

The mission of the Greater Brockton CHNA Community Health Needs Assessment Subcommittee is to gather information about the health and well-being of residents within the communities within the Greater Brockton CHNA and determine the areas of greatest need. We will then use this information to assist the CHNA in directing resources toward the coalition's four focus areas: asthma, oral health, nutrition and fitness, and substance abuse.

*Our primary goals are to:*

- Collect, organize, and analyze data to share with the community
- Engage community leaders, health and social service providers, and community members in discussions about how the environment of a community promotes or detracts from the health of its residents
- Identify vulnerable populations within the community so the CHNA may assist them in obtaining resources to achieve an environment in which health and well-being are sustainable for all
- Promote partnerships among community members, service providers, and community leaders to sustain a healthy environment for community residents

## Vision of the Greater Brockton CHNA Community Health Needs Assessment Subcommittee

The Greater Brockton CHNA Community Health Needs Assessment Subcommittee envisions a future in which community members, service providers, and community agencies will mobilize using information about community health status and environment to work together toward a healthy, safe environment for all residents.

# Demographics

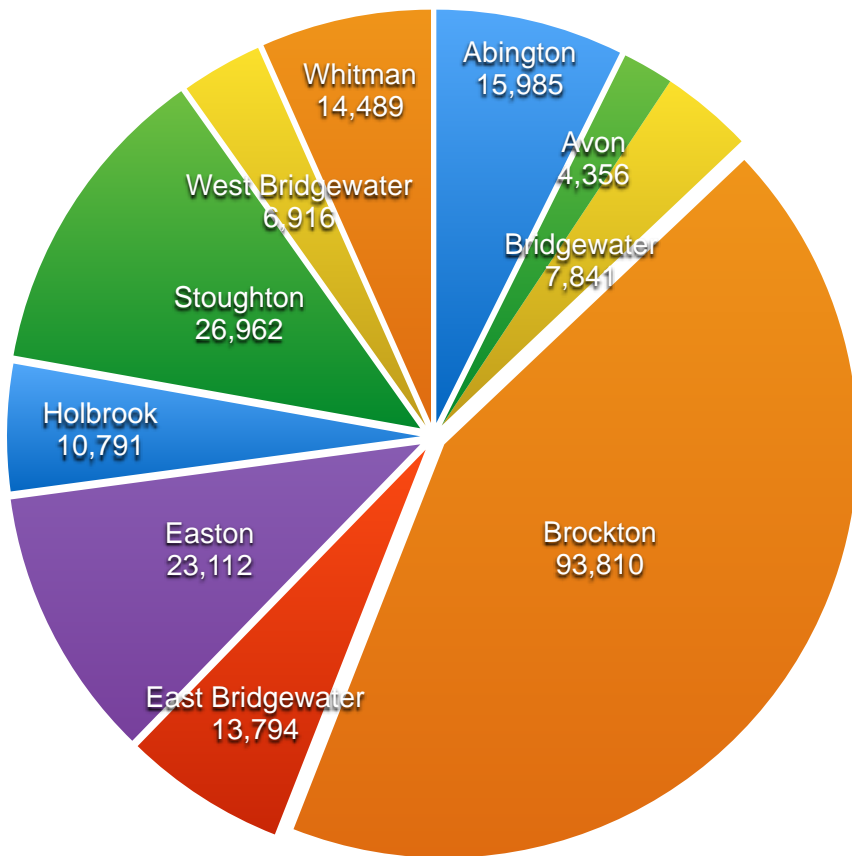
The Greater Brockton CHNA (CHNA 22) is made up of 10 unique communities with very different demographics. In the following pages of this section, a number of key demographics are illustrated for the ten CHNA communities. All of the demographic data from this section was extracted from the US Census ([www.census.gov](http://www.census.gov)).

## Greater Brockton Community Health Network Area (CHNA 22)



# Demographics: Population Size

Total Populations, Greater Brockton CHNA (2010)



Brockton has the largest population in the CHNA, followed by Stoughton and Easton. Avon has the smallest population in the CHNA.

Population by Race, CHNA 22 (2010, 2000)

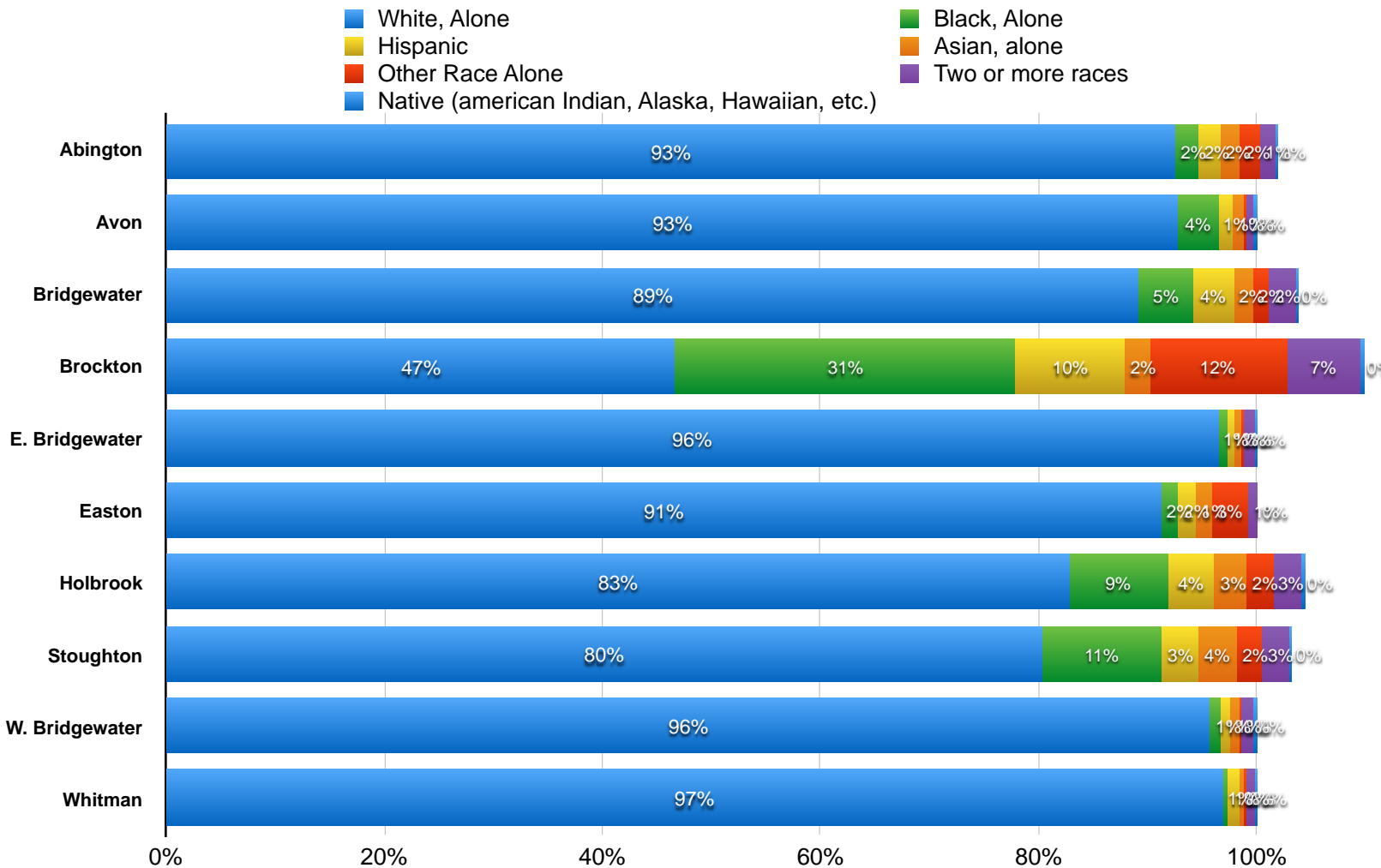
	Abington	Avon	Bridgewater	Brockton	E. Bridgewater	Easton	Holbrook	Stoughton	W. Bridgewater	Whitman
<b>White, Alone</b>	92.5%	92.8%	89.21%	46.71%	96.4%	91.2%	82.8%	80.24%	95.7%	96.8%
<b>Black, Alone</b>	2.14%	3.6%	4.91%	31.21%	0.9%	1.6%	8.96%	11.07%	0.9%	0.6%
<b>Hispanic</b>	1.94%	1.4%	3.72%	9.97%	0.7%	1.6%	4.39%	3.24%	1%	0.9%
<b>Asian, alone</b>	1.78%	0.9%	1.79%	2.29%	0.5%	1.4%	2.91%	3.6%	0.7%	0.4%
<b>Other Race Alone</b>	1.9%	0.2%	1.5%	12.47%	0.3%	3.4%	2.36%	2.33%	0.2%	0.2%
<b>Two or more races</b>	1.37%	0.8%	2.44%	6.91%	1%	0.8%	2.68%	2.57%	1.2%	1%
<b>Native (American Indian, Alaska, Hawaiian, etc.)</b>	0.31%	0.3%	0.15%	0.41%	0.23%	0.05%	0.29%	0.18%	0.3%	0.11%

The above table represents the data from the chart on the next page in table format.



# Demographics: Race

Population by Race, CHNA 22 (2010, 2000)



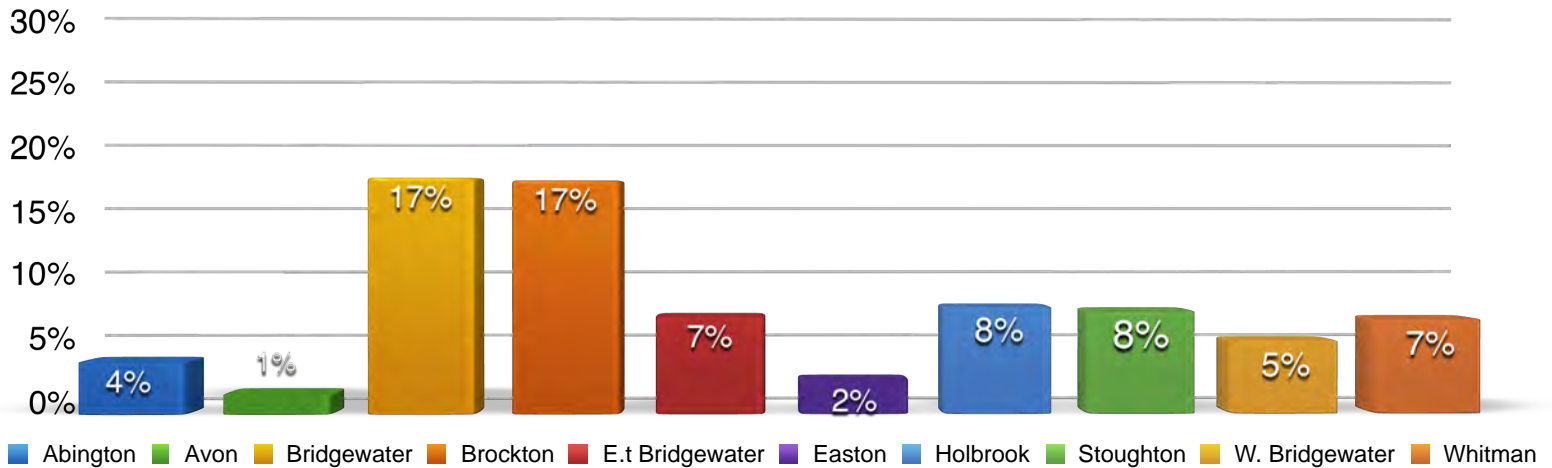
All race data is from the 2010 census, with the exceptions of Avon, East Bridgewater, Easton, West Bridgewater and Whitman, where only 2000 census data by race was available. In some cases, the percentages add up to greater than 100% as people may have self-identified as more than one race.

In last decade, Brockton has become been a “majority minority” city. This means that in Brockton individuals that identify as White (alone) are in the minority and other races comprise the majority of the population. This is due in large part to the doubling of the Black population, from 17.8% in 2000 to 37.7% in 2011.

It is also important to recognize that within census race data, certain large, local, ethnic groups become “invisible”, like Brazilian Portuguese individuals who may self-identify on the census as White, or Cape Verdean individuals who may self-identify on the census as Black.

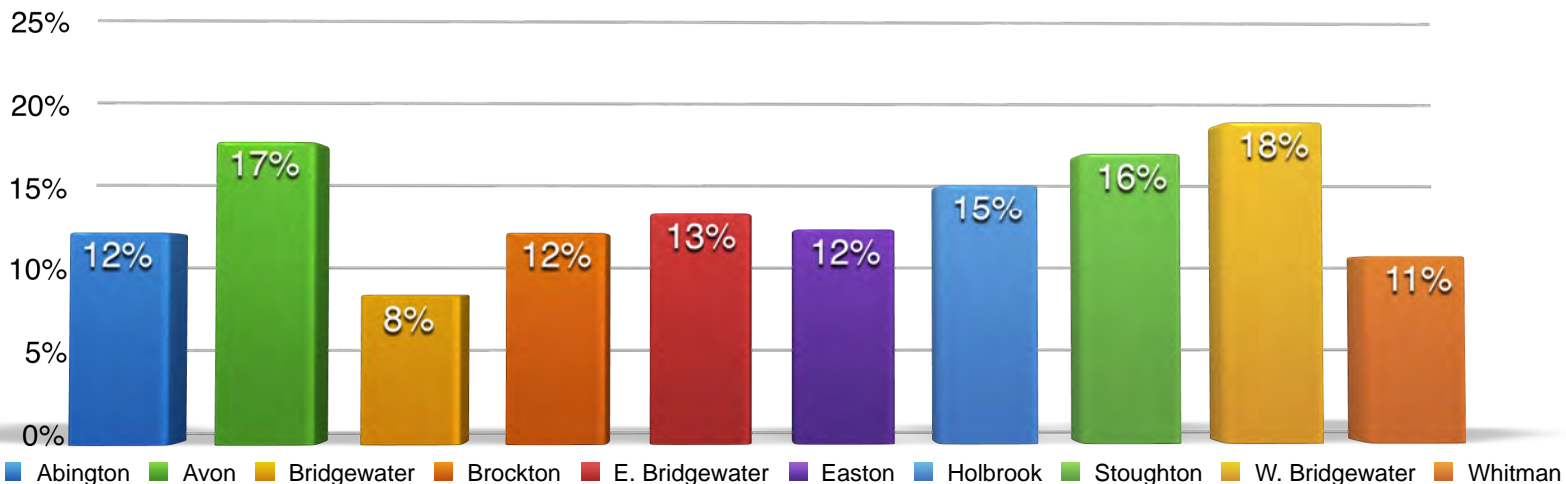
# Demographics: Poverty & Seniors

Individuals Below Poverty Level, CHNA 22 (2010)



Bridgewater has the highest percentage of individuals below the poverty level (17.3%), followed closely by Brockton (17.1%). Avon (1%) and Easton (2%) have the lowest percentages.

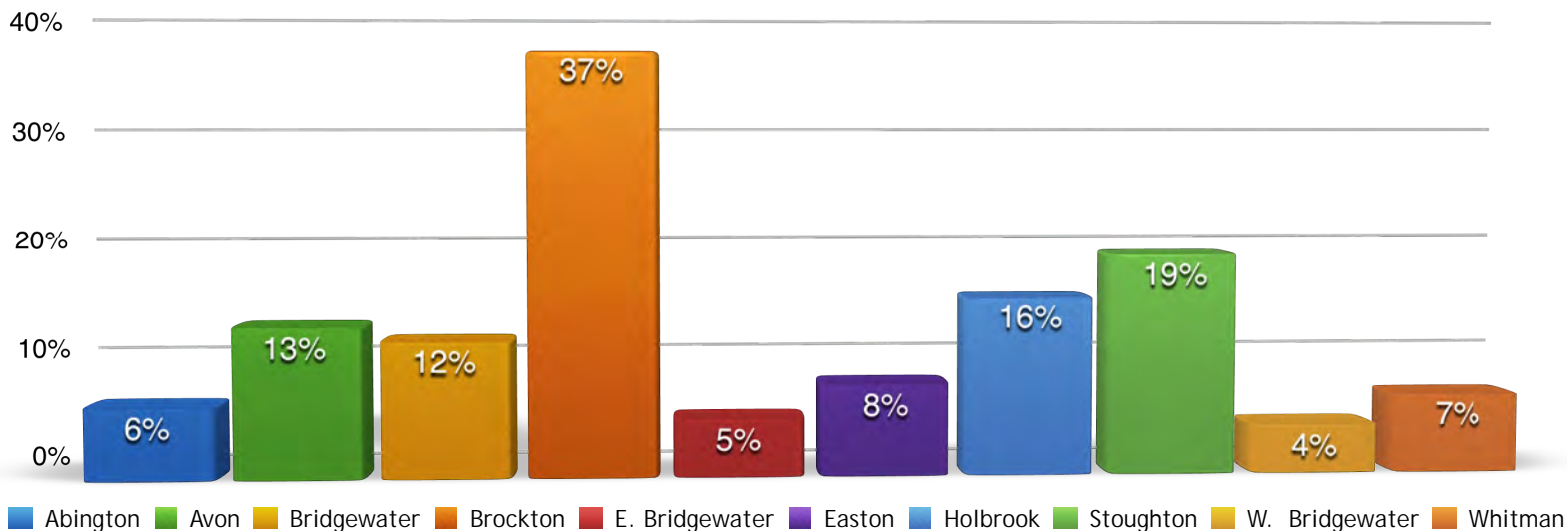
Percentage of of Population over 65, by CHNA 22 Community (2010)



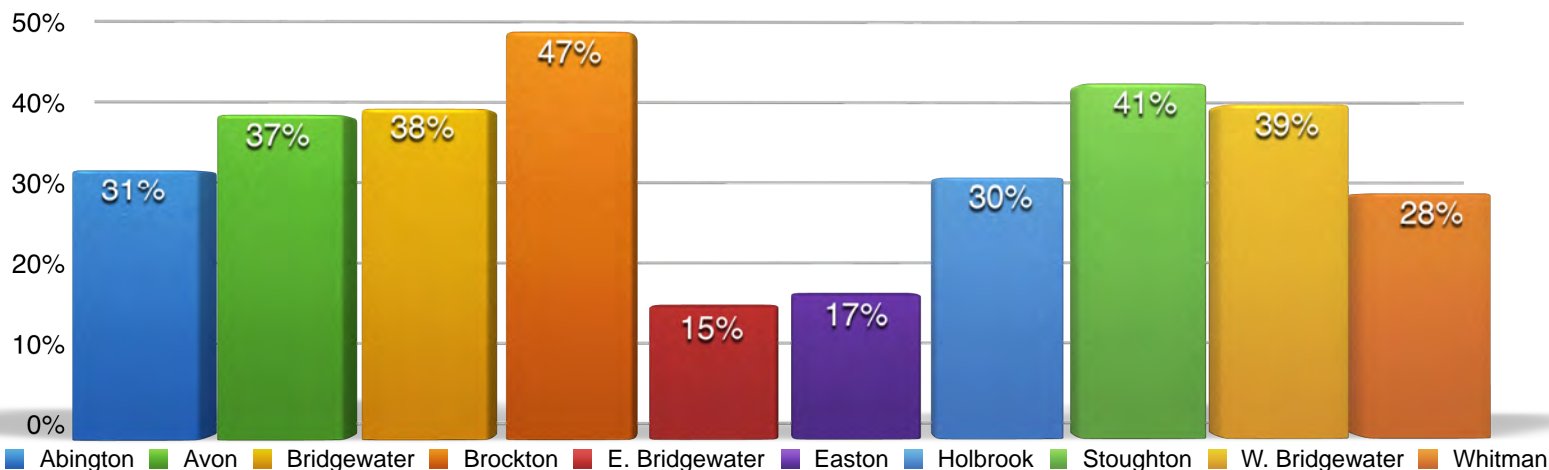
West Bridgewater has the highest percentage of individuals over the age of 65 (18.2%), followed closely by Avon (17%).

# Demographics: Language

Percentage of those that speak a language other than English CHNA 22, (2010)



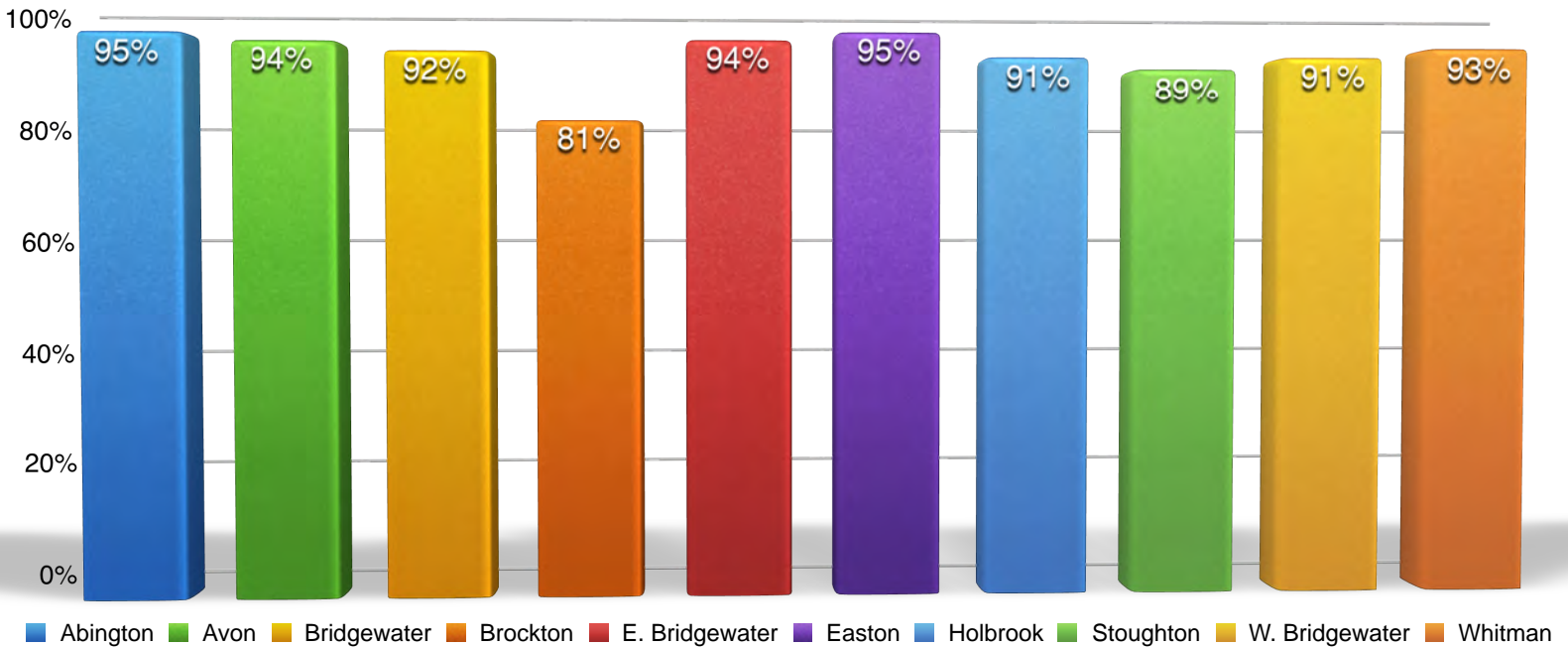
Percentage of those that speak a language other than English that "speak English less than very well", CHNA 22 (2010)



In Brockton, nearly 40% of the population speaks a language other than English and of that population, nearly half "speak English less than very well". This fact is critical in understanding how to share health information, as a large percentage of the population, particularly in Brockton and Stoughton, may not understand materials provided in English. Within this challenge of providing information in a way that is linguistically appropriate, also comes the challenge in providing information in a style and format (media) that is culturally appropriate.

# Demographics: Education

Percentage of Population with High School Education or Higher, CHNA 22 (2010)



Brockton has the highest percentage of the population without a High School education or higher (19%). Easton and Abington have the highest percentage of the population with High School Education or higher, both at 95%.

# Demographics: Summary Table

Summary Table of Demographics, CHNA 22, 2010

	Abington	Avon	Bridgewater	Brockton	East Bridgewater	Easton	Holbrook	Stoughton	West Bridgewater	Whitman
<b>Total population</b>	15,985	4,356	7,841	93,810	13,794	23,112	10,791	26,962	6,916	14,489
<b>% under 18</b>	23	20.8	11.5	25.7	24.7	22.7	22.1	21.3	21.6	25.1
<b>% over 65</b>	11.9	17	8.4	11.9	13	12.1	14.6	16.4	18.2	10.6
<b>% Individuals below the poverty level</b>	3.8	1.4	17.3	17.1	7.1	2.4	7.8	7.5	5.3	6.9
<b>% High School Education or Higher</b>	95.1	93.7	92.1	80.5	94	95.4	91.3	89.3	91.4	93
<b>% Speak a language other than English</b>	6.3	13.2	11.9	36.8	5	8	15.5	19.3	4.2	6.8
<b>% of those that speak a language other than English that "speak English less than very well"</b>	31	37.4	38.1	47	15.2	16.6	30.2	41.1	38.7	28.4

# Substance Abuse

## Quick Facts on Substance Abuse

From 1997 to 2012, the annual number of opioid-related deaths in Massachusetts increased from 218 to 681<sup>1</sup>

2008-2009: 9.6% of Massachusetts' population (12 and older) were either dependent on or abused drugs and alcohol in the past year. For 18-25 year olds, the percent was 23.4%<sup>2</sup>

As of 7/1/12, all home sharps (i.e. needles), whether opened or unopened, are banned from being discarded in MA general community waste<sup>3</sup>

A majority of CHNA 22 towns participate in annual drug take back days, allowing residents an opportunity to safely dispose of their unwanted medications at predetermined locations

In 2009, opioid-related overdoses killed more people in Massachusetts than motor vehicle-related injuries (627 versus 374 deaths, respectively)<sup>4</sup>



# Substance Abuse

## Overview:

In 2011, the Greater Brockton CHNA (CHNA 22) Steering Committee identified Substance Abuse as one of the priority areas of need based on the 2010 *Greater Brockton CHNA Community Health Assessment*. This decision was supported by the following key findings from that report:

- From 2005-2007 the opioid-related fatal overdose rate in the city of Brockton (15 per 100,000) was significantly higher than the state rate (9 per 100,000)
- In 2007 the city of Brockton had higher rates of admission to BSAS funded facilities (where alcohol, cocaine and heroin were the primary substances) than the state overall. The city of Brockton also had a higher rate of admissions to BSAS funded facilities where a needle had been used within a year of admission than the state overall.
- For young adults ages 20-24, Avon, Whitman, Holbrook, Stoughton, East Bridgewater, Brockton and Abington had higher rates of admission to BSAS funded facilities for all substances than the state rate in 2007.
- Both the city of Brockton and the CHNA 22 towns other than Brockton had a higher rate of alcohol and other drug-related hospital discharges than the state overall from 2006-2008.
- In discussions with key informants outside the city of Brockton, substance use among people of all ages emerged as major themes of concern, and in particular, alcohol use among adults.
- During community impressions sessions, residents identified substance use, including injection drugs and alcohol as major concerns. One major theme was that people were using substances to “escape” the stress of the economic downturn.

There are many ways to look at substance abuse ranging from consumption / use data (youth substance abuse rates, adult use rates) to consequence related data (treatment admissions, overdoses, etc.). In addition, like other health issues, this issue can be examined by looking at different populations (i.e. youth or adults) There is also more substance abuse related data, than data on the other topics, although there are still gaps and challenges.

Currently, Massachusetts is facing an opiate epidemic. Consequently, substance abuse, particularly prescription drug abuse, opiates and heroin abuse have been receiving a lot of media coverage recently. Many families in Massachusetts and the CHNA 22 area have been directly impacted by opiate addiction or overdose deaths. The Department of Public Health has been working hard to provide recent data regarding this public health emergency specific related to opiate use. This data is included in this section.

# Substance Abuse

## Definitions:

Age Adjusted Rate: A way to compare rates while adjusting for (designed to minimize) the effects of differences in age distributions for different populations. Age-adjusted rates are typically reported as per 100,000 persons ([mass.gov](http://mass.gov))

BSAS: Bureau of Substance Abuse Services at the Massachusetts Department of Public Health

FY: Fiscal Year. In the case of this report, a fiscal year begins July 1-June 30

IDU: Intravenous drug use, i.e. using a needle to inject drugs into the body

Opioid: A class of medications that relieve pain, including morphine, hydrocodone (Vicodin) (Oxycontin, Percocet), codeine and other related drugs.



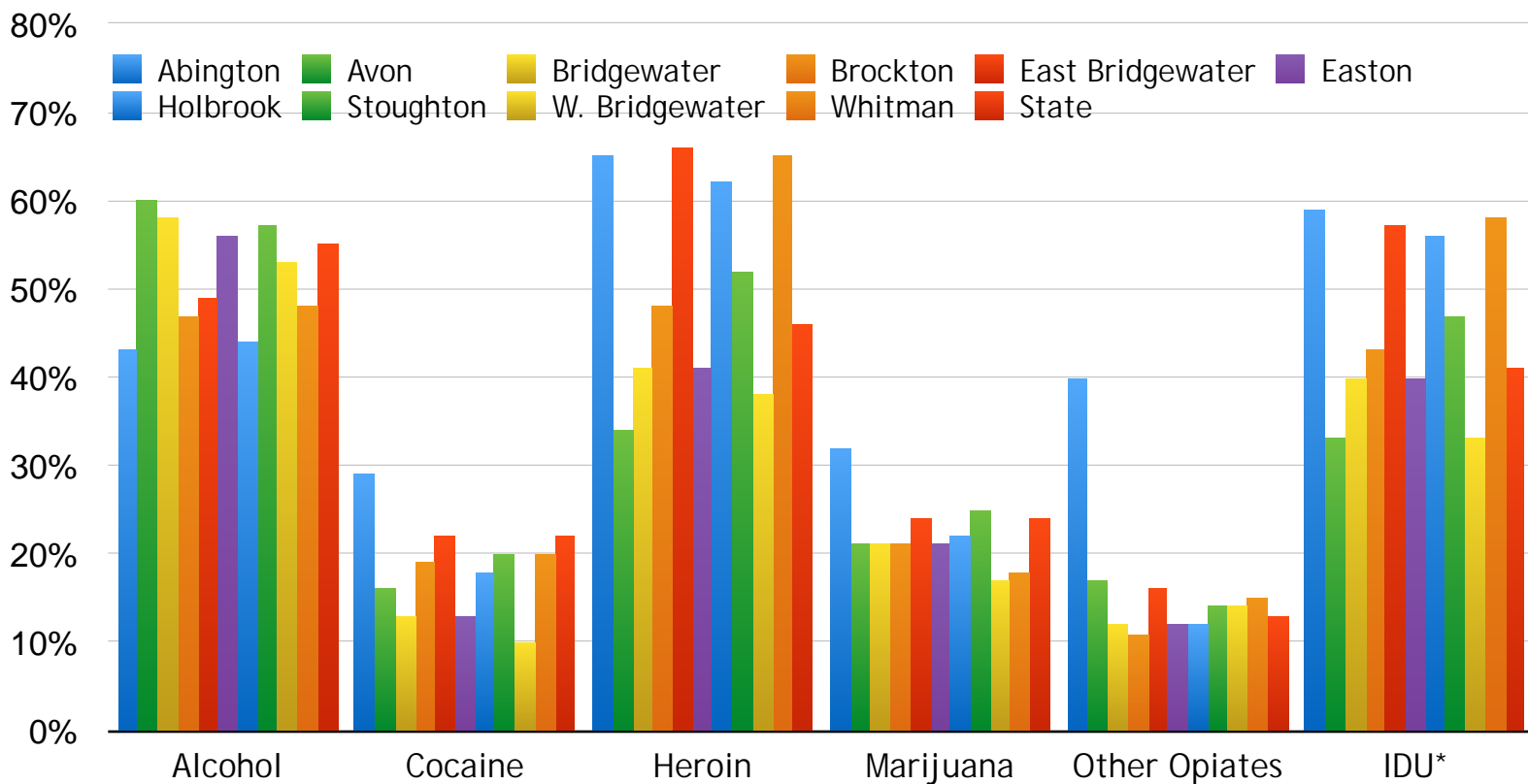
# Substance Abuse: Data

## Adult Substance Abuse

One way to look at Adult Substance Abuse in Massachusetts is to examine the treatment admission data. Below is a graph depicting the drugs used in the past year as identified by individuals admitted to Massachusetts State funded treatment programs at the time of their admission, broken out by town. The percentages do not add up to 100%, as individuals may have identified using more than one drug.

Limitation: This data only represents State Funded programs, and does not include individuals seeking treatment through privately funded agencies or those not in treatment programs.

FY2012 Treatment Admissions: Substance Use in Past Use by Town and Drug<sup>5</sup>

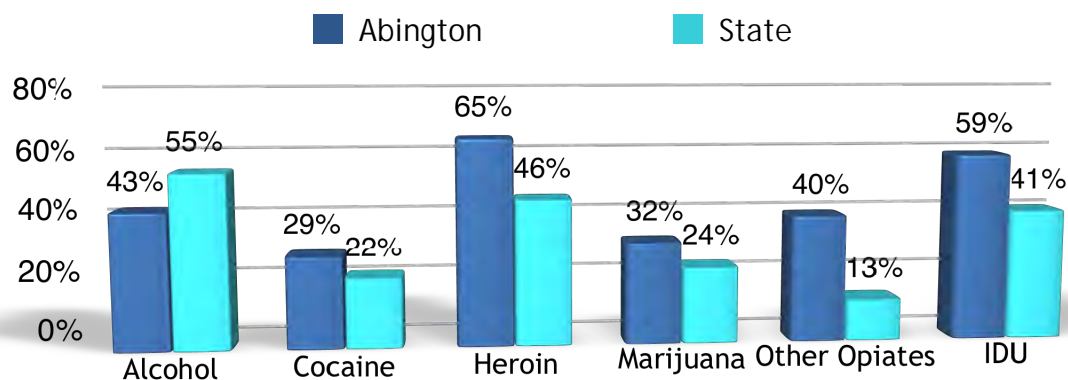


Five CHNA communities experienced rates of past year heroin abuse (by individuals in treatment) at rates higher than the state average of 48%: Abington (65%), East Bridgewater (66%), Holbrook (62%), Stoughton (52%) and Whitman (65%).

# Substance Abuse: Data

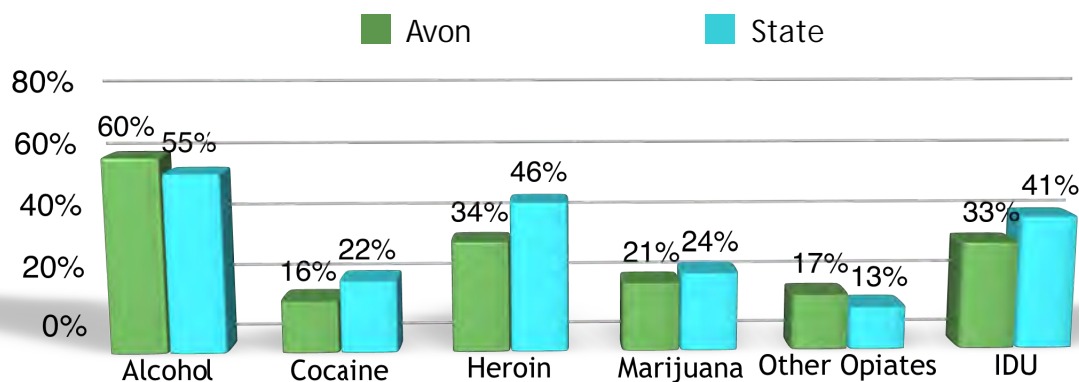
FY2012 Treatment Admissions: Substance Use in Past Year by Town and Drug (Percents), Compared with State Data

## Abington



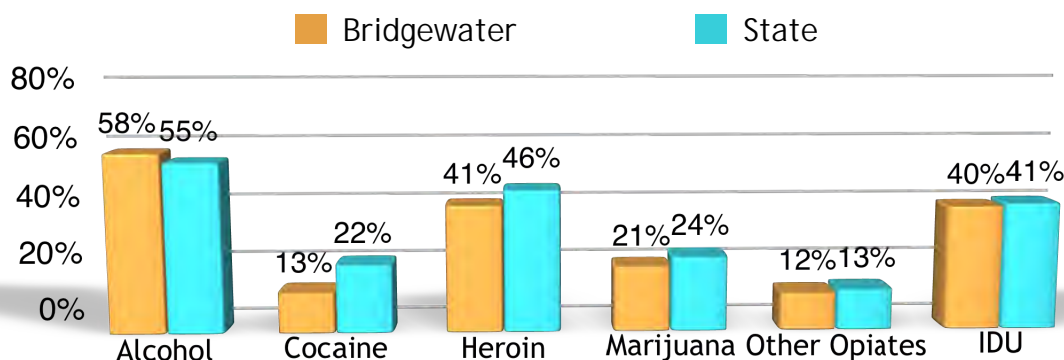
In Abington, the 642 individuals in BSAS funded treatment programs reported past year Heroin, IDU and Other Opiates at higher rates than the state.

## Avon



In Avon, the 51-99 (the exact number is too small to report) individuals in BSAS funded treatment programs reported past year Alcohol use at higher rates than the state, whereas Heroin and opiate use rates were lower or similar to state rates.

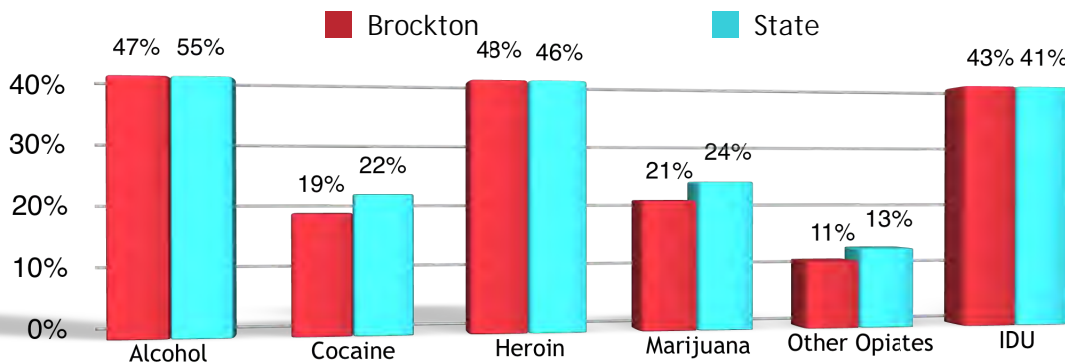
## Bridgewater



In Bridgewater, the 372 individuals in BSAS funded treatment programs reported past year treatment admission statistics that were similar to State rates.

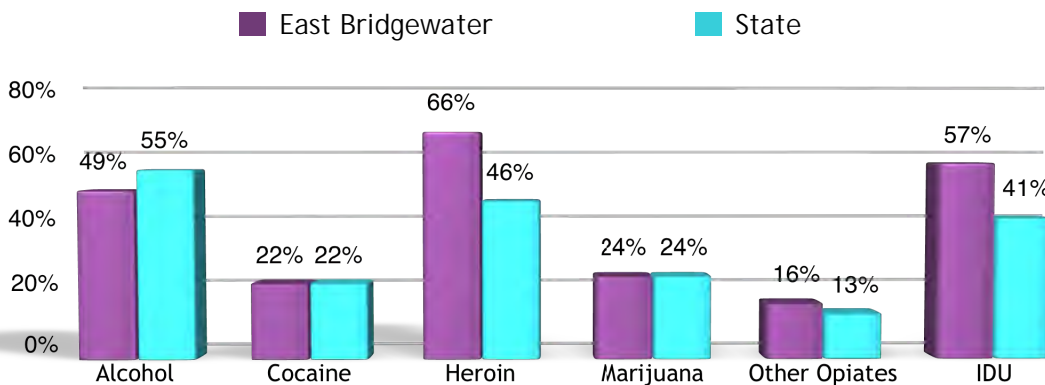
# Substance Abuse: Data

## Brockton



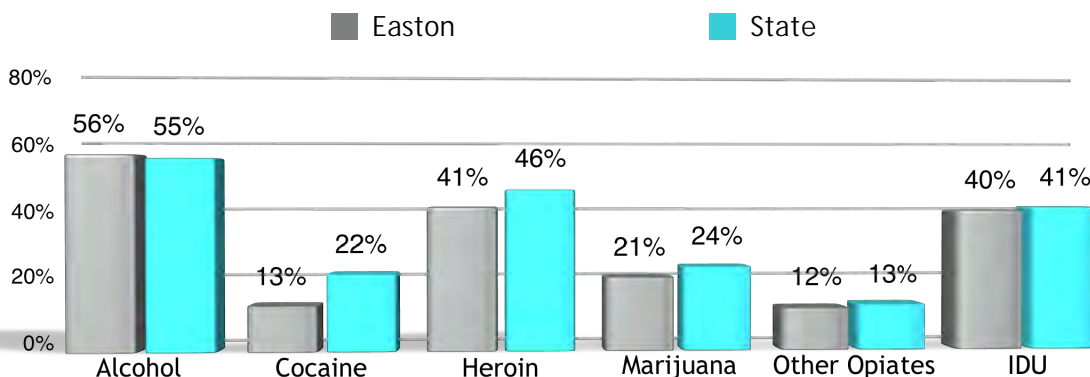
In Brockton, the 2,113 individuals in BSAS funded treatment programs reported past year treatment admission statistics that were very similar to the State rates.

## East Bridgewater



In East Bridgewater, the 270 individuals in BSAS funded treatment programs reported past year Heroin, IDU and other Opiates at higher rates than the state.

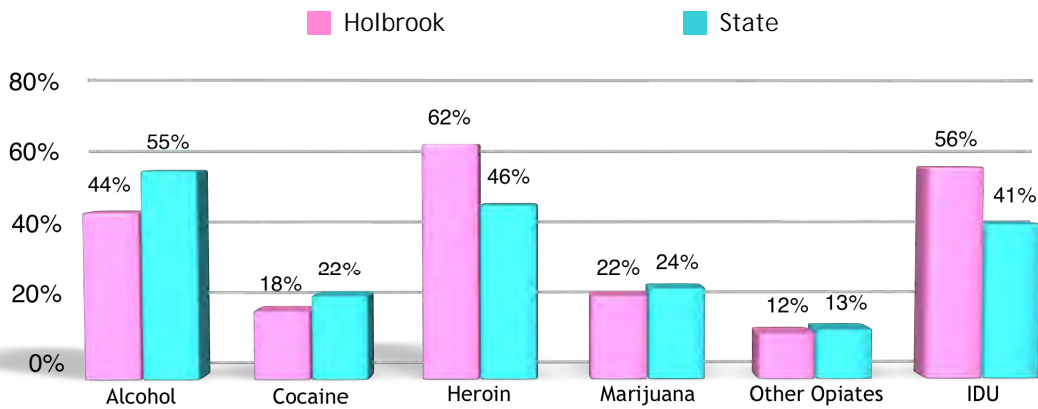
## Easton



In Easton, the 214 individuals in BSAS funded treatment programs reported past year treatment admission statistics that were similar to State rates, with the exception of Cocaine, which was well below the state rate.

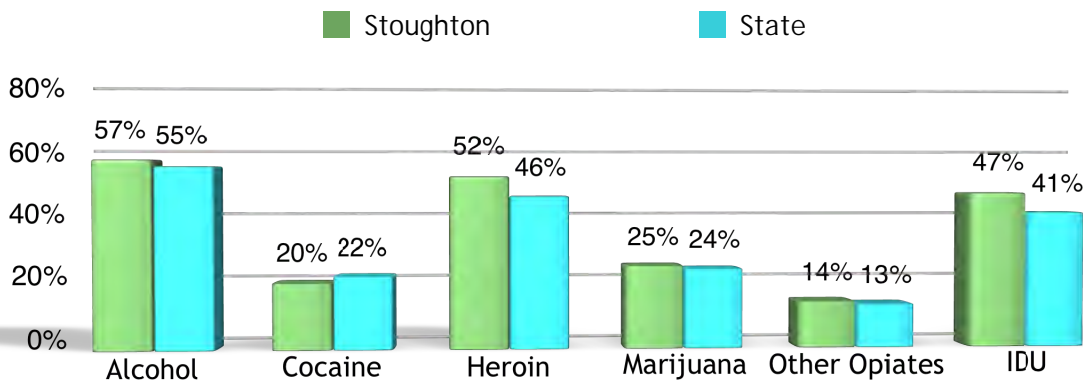
# Substance Abuse: Data

## Holbrook



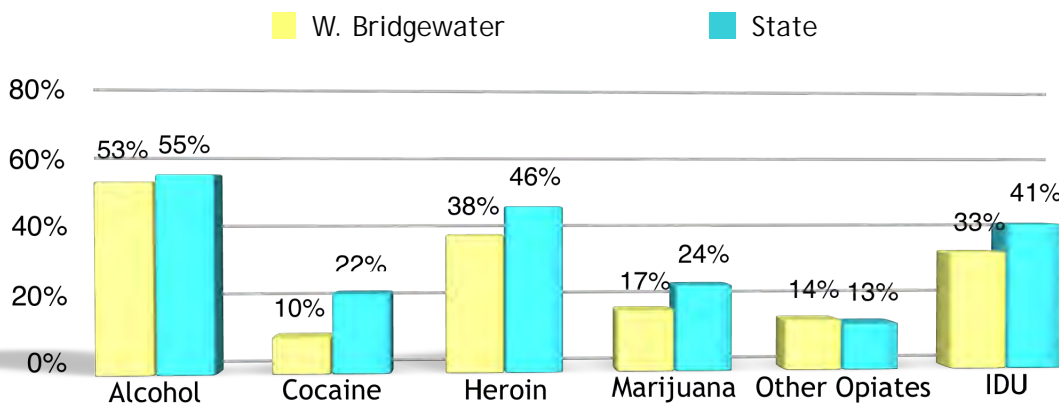
In Holbrook, the 234 individuals in BSAS funded treatment programs reported past year Heroin and IDU at higher rates than the State and alcohol use at lower rates than the State.

## Stoughton



In Stoughton, the 343 individuals in BSAS funded treatment programs reported past year Heroin and IDU at slightly higher rates than the State.

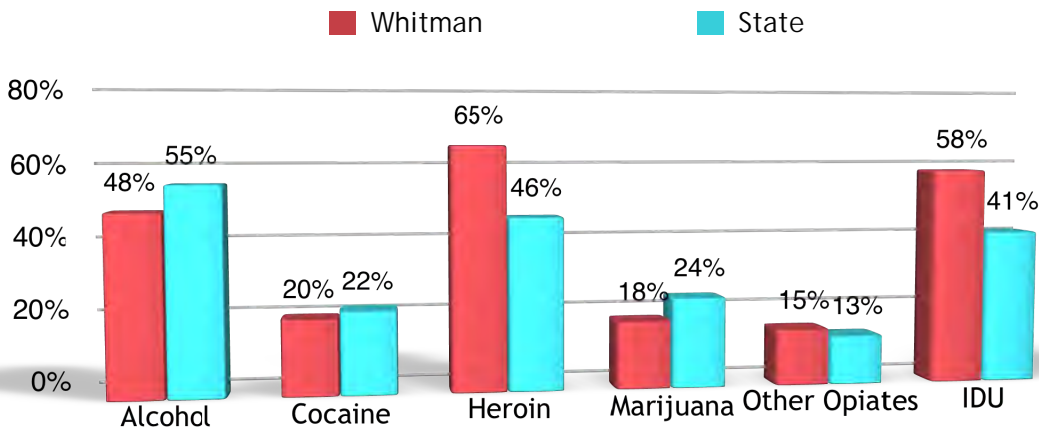
## West Bridgewater



In West Bridgewater, the 100 individuals in BSAS funded treatment programs reported past year treatment admission statistics that were lower than the State rates, with the exception of alcohol and opiates, which were similar to State rates.

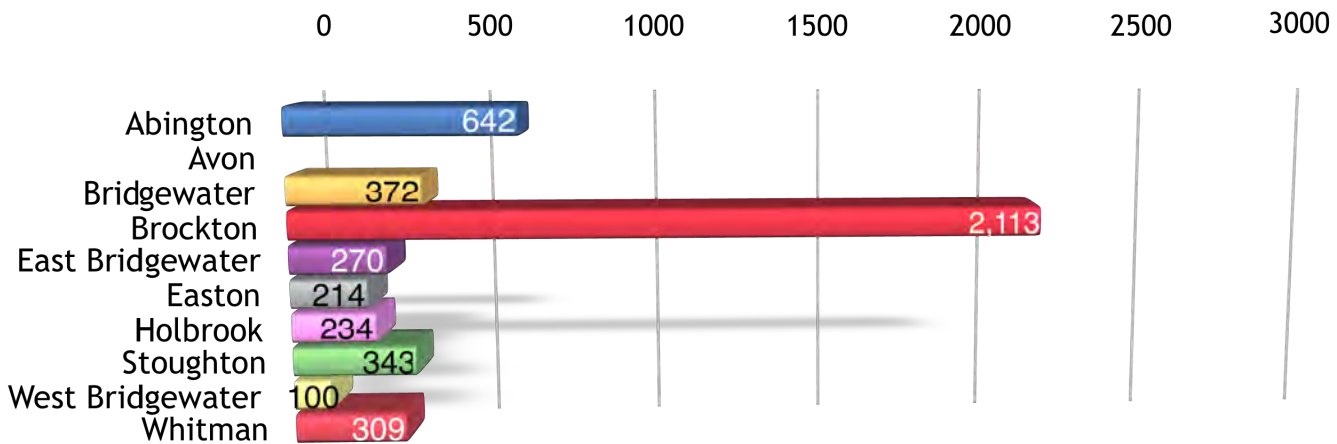
# Substance Abuse: Data

## Whitman



In Whitman, the 309 individuals in BSAS funded treatment programs reported past year Heroin and Intravenous Drug Use (IDU) at higher rates than the state and Alcohol use at lower rates than the State.

Admissions to BSAS-Funded Treatment Facilities, by Town, FY 2012<sup>6</sup>



The chart above represents the *actual numbers* of individuals admitted to BSAS-funded treatment agencies in Fiscal Year 2012. These numbers are not rates. Brockton had the highest number of treatment admissions to BSAS-funded facilities in FY 2012. This would be expected, as Brockton is the largest community in CHNA 22. The number of actual admissions from Avon was too small to report. Again, this data does not include individuals who seek treatment at privately funded treatment facilities, so this is only some of the treatment data.

# Substance Abuse: Data

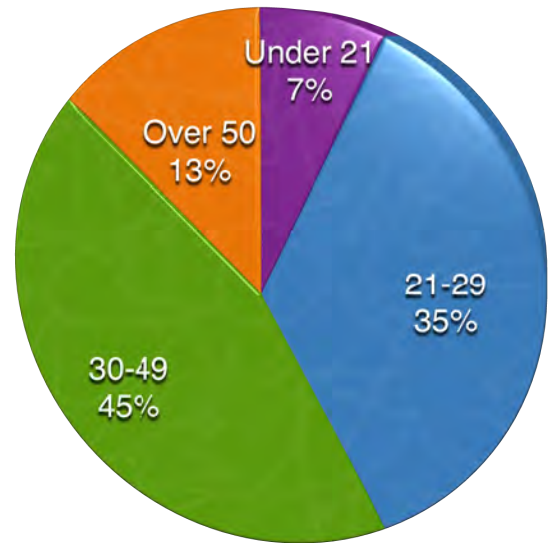
The FY12 Treatment admissions data also includes data on the ages of patients at the time of their admission. For the State of Massachusetts the age breakdowns are as follows:

While many of the CHNA 22 communities (including Brockton), generally follow a similar pattern of age distribution for individuals in BSAS funded communities, there are a few notable exceptions.

- In Abington 50% of the patients are age 21-29
- In Bridgewater 47% of the patients are age 21-29
- In East Bridgewater 15% of the patients are under 21 and 50% are 21-29
- In Holbrook 51% of the patients are 21-29
- In Stoughton 52% of the patients are 21-29
- In Whitman 45% of the patients are 21-29

6 of the 10 CHNA 22 communities appear to be experiencing higher rates of young adults in treatment, as compared to the state where the majority of treatment admissions come from the 30-49 year old age range.

**Ages of Patients in Treatment at Time of Admission, All Massachusetts (FY2012)**



# Substance Abuse: Data

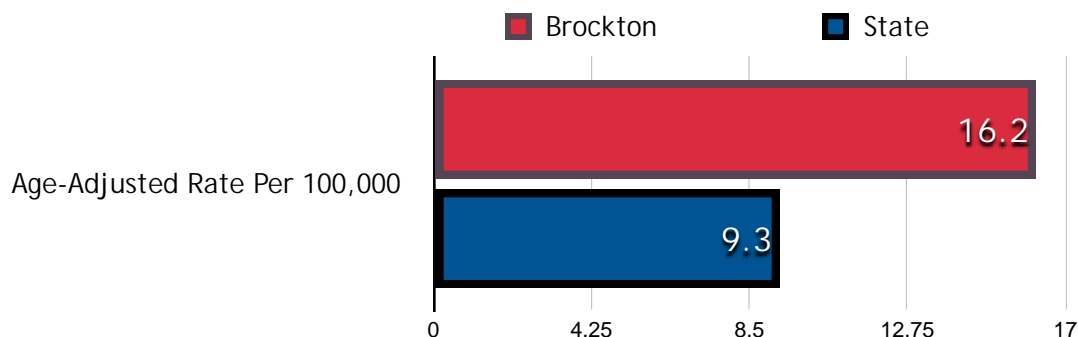
## All Opioid-Related Fatal Overdoses and Emergency Department Visits for Nonfatal Opioid Poisoning, MA Residents, 2008-2010 (3-Year Average)<sup>7</sup>

Opiates (including heroin and pharmaceuticals) continue to be a significant issue in Massachusetts. In addition to hospital and treatment data, another way to look at opiate use specifically is to look at the rate of fatal and non-fatal overdoses. The chart below includes a 3-year average (between 2008-2010) of all opiate overdoses, both fatal and non-fatal, of residents in CHNA 22. This data is more comprehensive than data collected locally through ambulance services and death records, as there is often a lag time on death records and not all individuals take an ambulance to the hospital (or overdose in their own community). However, it may not be as current.

Many of the CHNA 22 communities are in the top 25% of communities in Massachusetts in terms of the number of opioid-related fatal overdoses and acute care hospital events associated with nonfatal opioid poisoning (3-year averages 2008-2010). Of the 351 cities and towns in Massachusetts, Brockton ranks 6<sup>th</sup>. All of the communities with the exception of Avon and West Bridgewater rank in the top 25%.

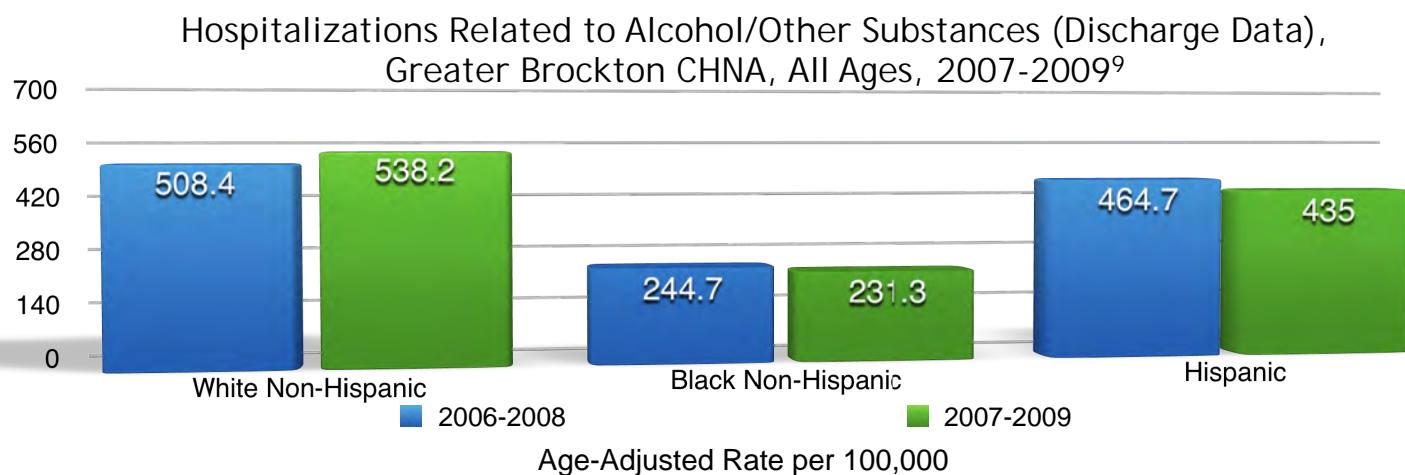
City / Town	3 Year Average
Abington	12.3
Avon	< 7
Bridgewater	15.3
Brockton	96.3
East Bridgewater	10
Easton	11
Holbrook	11.3
Stoughton	26
West Bridgewater	< 7
Whitman	13.7
MA	3,967

## Opioid-Related Fatal Overdoses (Brockton v. State), 2007-2009<sup>8</sup>



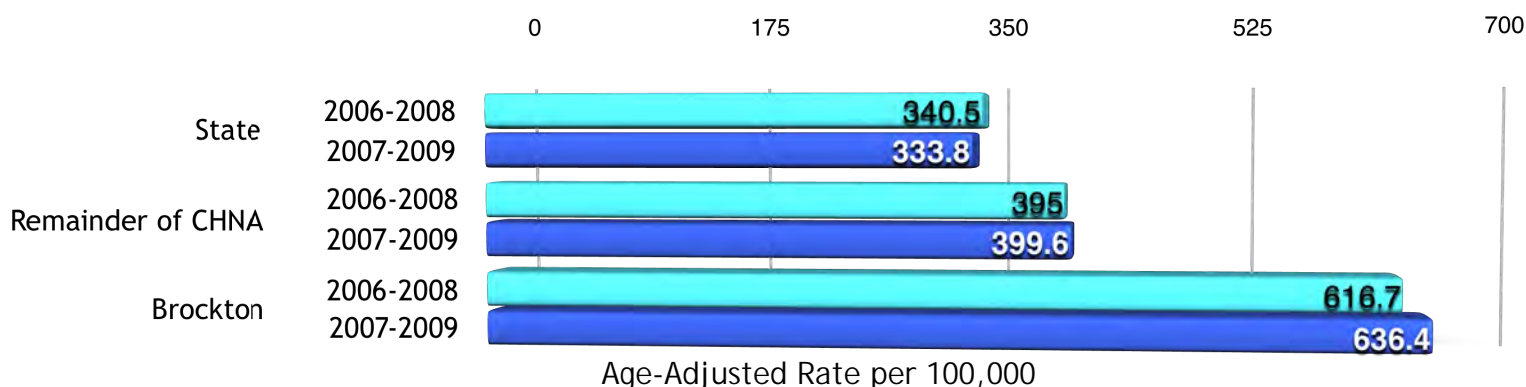
Brockton experienced a *higher* rate of opioid-related fatal overdoses when compared to the State from 2007-2009. From 2005-2007, the age-adjusted rate of opioid related fatal overdoses in the City of Brockton was 15 per 100,000, as compared to the State rate of 9 per 100,000.

# Substance Abuse: Data



Patterns for rates of Hospitalization related to Alcohol/Other Substances by Race/Ethnicity remain similar to those from 2006-2008, with White Non-Hispanic Individuals experiencing higher rates of Hospitalizations. Rates for White Non-Hispanic individuals in the CHNA have increased since 2006-2008, while rates for Black Non-Hispanic Individuals and Hispanic Individuals have decreased.

Hospitalizations Related to Alcohol and Other Substances (Discharge Data), Greater Brockton CHNA, All Ages, 2007-2009<sup>10</sup>



Brockton and the other CHNA towns exhibited *higher rates* of hospitalizations related to alcohol and other substances between 2007 and 2009 when compared to the state as a whole.

Compared to the 2006-2008 data, the Brockton rate of hospitalization experienced an increase.



## Number of Unintentional Opioid Overdose Deaths by City/Town, 2000-2013<sup>14</sup>

City/Town	Year of Death														JAN-JUN	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TOTAL 2000-2012	2012	2013 <sup>3</sup>
ABINGTON	1	0	0	0	1	1	3	2	1	3	1	3	1	17	0	0
AVON	1	0	1	0	0	0	2	0	1	0	0	1	2	8	1	1
BROCKTON	8	7	9	10	8	14	10	17	15	13	8	13	9	141	5	10
BRIDGEWATER	1	1	0	2	3	1	0	3	1	4	2	4	2	24	0	0
E. BRIDGEWATER	2	1	3	0	0	1	1	2	1	3	1	1	0	16	0	1
EASTON	1	1	0	1	0	1	1	0	1	0	0	0	1	7	0	2
HOLBROOK	0	2	1	0	1	2	1	5	1	2	2	1	1	19	1	1
STOUGHTON	1	3	1	1	3	1	1	6	6	4	8	4	4	43	0	DPH data: 2 Local Data: 5
W. BRIDGEWATER	0	0	0	0	0	0	2	0	0	1	0	0	3	6	2	1
WHITMAN	1	2	1	5	1	2	2	1	1	2	2	0	4	24	1	2
<b>STATEWIDE TOTAL</b>	<b>338</b>	<b>468</b>	<b>429</b>	<b>549</b>	<b>456</b>	<b>525</b>	<b>615</b>	<b>614</b>	<b>561</b>	<b>599</b>	<b>526</b>	<b>603</b>	<b>668</b>	<b>6951</b>	<b>321</b>	<b>337</b>

<sup>1</sup> Unintentional (also known as "accidental") poisoning/overdose deaths combine unintentional and undetermined intents to account for a change in death coding that occurred in 2005. Suicides are excluded from this analysis.

<sup>2</sup> Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids.

<sup>3</sup> 2013 death data are preliminary and subject to updates. Case reviews of deaths are evaluated and updated on an ongoing basis. A small number of death certificates have yet to be received from the municipalities and many have yet to be assigned cause-of-death codes.

Source: Registry of Vital Records and Statistics, MDPH

Three CHNA communities had greater than 10 overdose deaths between 2008 and 2012, Bridgewater, Brockton and Stoughton. When those communities compare total overdoses over two five-year blocks of time (2003-2007 vs. 2008-2012), Bridgewater and Stoughton both experienced more than a 20% increase in overdose deaths between the two time periods.

Stoughton collects data locally in collaboration with the Ambulance service, In 2013, the Stoughton Ambulance reported 5 overdose deaths (compared to the state's 2). This is likely to be updated since the State 2013 data is preliminary.

# Substance Abuse: Key Informants

What are Key Informants Saying About Substance Abuse?

"[The] issue of opioid abuse is severe in our area..."

"[The] abuse of RX pills (among adults) is on the rise"

"70% of overdoses are due to RX opioids"

"There's a serious lack of education surrounding the differences between Oxycontin and Percs"

"Overdoses have been a concern for East Bridgewater, but not much has been said about them"

Older patrons and patrons with children stopped visiting the Avon Public Library due to disorderly behavior by a group of youths who were selling drugs

Marijuana is perceived to be the most commonly used drug by Stoughton high school students

"[Towns are] starting to see an increase in Narcan use by friends and family members prior to EMTs arriving on scene"

Abington was unable to be helped by the Brockton Mayor's Opioid Overdose Prevention Coalition this year - did not have the capacity to receive assistance

Stoughton has experienced decreases in youth substance abuse among high school students over the past 10 years.

Avon youth do not usually have anywhere to go after school hours due to a lack of "youth friendly" facilities - often getting in "trouble" because they did not have anything to do

Avon youth expressed frustration with smoking/drug activity behind their school building

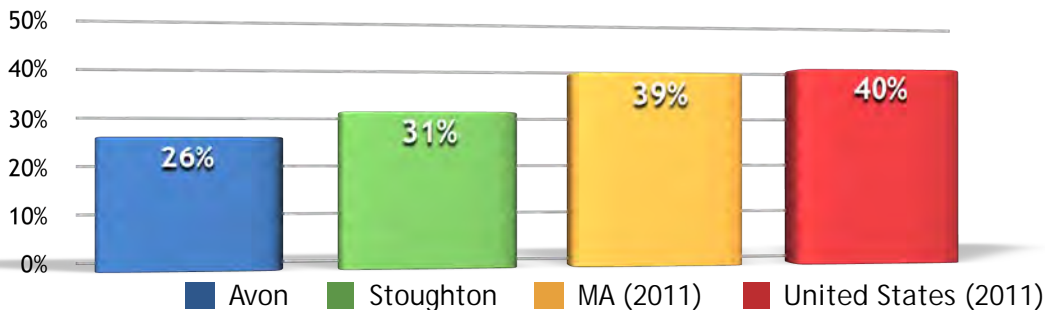
Stoughton youth believe that prescription drug use rates among their peers are low, but report high use of "purple drank", a mix of tylenol with codeine, soda & a Jolly Rancher candy

# Substance Abuse

## Youth Substance Abuse

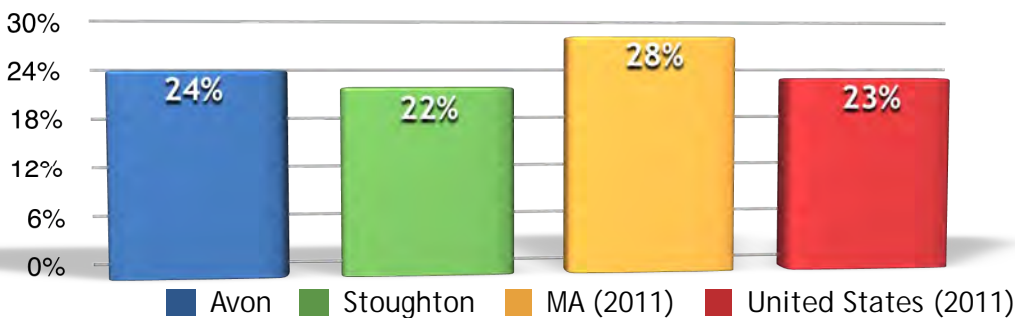
Limitations: Some High Schools utilize health surveys, like the CDC's Youth Risk Behavior Survey to measure youth behaviors like substance abuse. In the Greater Brockton CHNA area, Stoughton and Avon High Schools utilize this survey, as does the Commonwealth and the United States. Although Avon and Stoughton collected data in 2013, the most recent state and national data is 2011. Other CHNA communities either do not conduct school health surveys or did not provide their data for this report.

Alcohol Use, Past 30 Days, 2013 High School Students in Avon and Stoughton<sup>11</sup>



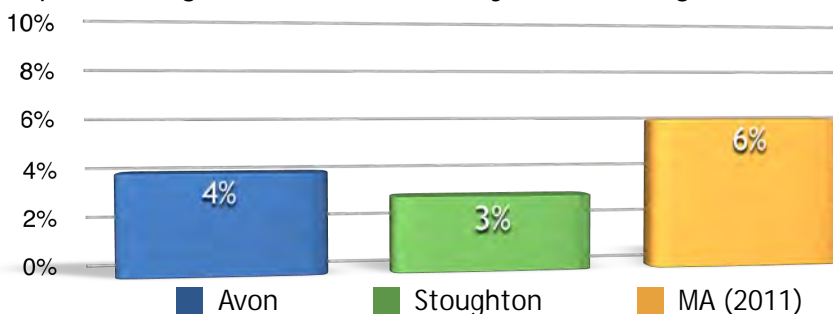
"Past 30 days" is used as a measure of "current" substance use.

Marijuana Use, Past 30 Days, 2013, High School Students in Avon and Stoughton<sup>12</sup>



For current alcohol, marijuana and prescription drug misuse, both Stoughton and Avon have rates below the State.

Prescription Drug Misuse, Past 30 Days, 2013, High School Students in Avon and Stoughton<sup>13</sup>



# Substance Abuse: Focus Group Themes

*What made it more likely for you to use substances?*

- Availability: "It is just there"
- "Self-Medicating" : Using substances to deal with pain or trauma
- "I don't think all the knowledge in the world would have stopped me from using...neither of my parents were addicts...I didn't know where I was headed...I wouldn't know if the knowledge would have done me a bit of good."

*Barriers to Substance Use:*

- Fear of consequences: incarceration, failing drug tests, guilt from family members
- Lack of access to drugs

*Challenges Related to Treatment:*

- Cost: Insurance issues
- Needing immediate treatment: "If they can't get in right away...if they get dope sick before that bed becomes available the feeling of wanting treatment no longer exists."
- Length of stay is not sufficient

*Recovery:*

- Peer Support: "There is a lot of peer support in recovery"
- Facing fears: "One in recovery needs to face fear and regret"

# Substance Abuse: Data

## Drug Disposal Information: CHNA 22

Town	Drop Box at Police Station	Location for Needle Disposal
Abington	No	Abington Health Department 500 Gliniewicz Way, Room 109, Abington, MA 02351
Avon	No	Avon Health Department 150 Main Street , Avon, MA 02322
Bridgewater	No	Bridgewater Health Department 66 Central Square, Bridgewater, MA 02324
Brockton	No	Recycling Depot 301A Oak Hill Way , Brockton, MA 02302
East Bridgewater	No: if there is an urgent need for drug disposal, the police chief is in charge of the task.	Town Hall Bridgewater 175 Central Street, East Bridgewater, MA 02333
Easton	Yes	Easton Fire Department, Administrative Offices 413 Bay Road, South Easton, MA 02375  Easton Board of Health 136 Elm Street, North Easton, MA 02356  Easton Council on Aging 13 Barrows Street, North Easton, MA 02356
Holbrook	Yes	None - Drug disposal box at Holbrook Public Safety Building (Police and Fire), but sharps not accepted
Stoughton	Yes	Stoughton Fire Department 30 Freeman Street, Stoughton, MA 02072
West Bridgewater	No	Fire Department 99 West Center Street, West Bridgewater, MA 02379
Whitman	No	Whitman Fire Department 56 Temple Street, Whitman, MA 02382

Less than 1/3 of communities in the Greater Brockton CHNA have drug disposal drop boxes. In Norfolk County the District Attorney's Office collaborated with local Police Departments (Holbrook, Avon & Stoughton) to purchase the dropbox and support ongoing disposal needs. The Avon Police Department lobby was too small to install a drop box. Easton received a grant for drug disposal box from the Massachusetts Department of Public Health.

# Policy Change: Substance Abuse Prevention

Local Examples of Policy Change for Substance Abuse Prevention		
Community	Area of Focus	Policy Change
Avon	All Youth Substance Abuse	<i>Library Security training conducted for staff; library policies created, changed to thwart unwanted behaviors</i>
	All Youth Substance Abuse Prevention	<i>ACES of Avon worked with the Stoughton YMCA to be open free of charge on ½ days and worked with the school to get the bus to add the YMCA to their bus route on ½ days</i>
	Marijuana Prevention	<i>Police training to properly enforce public consumption marijuana by-law</i>
	Smoking Prevention	<i>Avon students worked with their local BOH to make all smoking on town property illegal - new signs were posted and petitioning for a school BOH agent to be present to issue fines; youth also requested increased police presence</i>
	All Youth Substance Abuse Prevention	<i>Establishment of Substance Abuse Prevention Coalition: Avon ACES</i>
Brockton	Opiate Overdose & RX Drug Prevention	<i>Establishment of Substance Abuse Prevention Coalition: Brockton Mayor's Opiate Overdose Prevention Coalition</i>
	Underage Drinking Prevention	<i>Establishment of Brockton Communities Mobilizing for Change on Alcohol (CMCA) Coalition</i>
	Underage Drinking Prevention	<i>21 Proof Training on responsible beverage service available for liquor stores</i>
East Bridgewater	Substance Abuse	<i>Establishment of Substance Abuse Prevention Coalition: EB HOPE</i>
Easton	RX Drug Prevention	<i>Drug Drop Off Kiosk in lobby of Police Station</i>
Holbrook	Substance Abuse	<i>Establishment of Substance Abuse Prevention Coalition</i>

# Policy Change: Substance Abuse Prevention

Local Examples of Policy Change for Substance Abuse Prevention		
Stoughton	All Youth Substance Abuse	Renovation of CAPP (2014) playground with structures less conducive to risky behavior
	All Youth Substance Abuse	Prom Policies: All students attending prom required to sign a prom contract with guardian; all students must ride the school sponsored bus to the prom (no driving)
	Opiate Overdose	Stoughton Police carry Narcan in all Police Cruisers, use Narcan as part of first responder protocol when overdose is suspected
	Underage Drinking	Police Conduct compliance checks & shoulder tap surveys 1-2 times annually
	RX Drug Prevention	Prescription Drug Take Back as part of town bi-annual hazardous waste days
	RX Drug Prevention	Drug Drop Off Kiosk in lobby of Police Station
	All Youth Substance Abuse	Establishment of Substance Abuse Prevention Coalition: Stoughton OASIS

Five of the CHNA 22 communities have established coalitions to address substance abuse in their communities.

# Substance Abuse: Conclusions

Opiate Abuse: In the 2010 Greater Brockton CHNA Community Health Assessment, key informants identified adult alcohol use as a particular concern. In this report, key informants spoke nearly exclusively about opiate abuse and its consequences. In the context of the current and very public wave of opiate overdoses, heroin use has received a significant amount of media attention. The quantitative data supports that this is a significant issue in CHNA 22 when considered against State data. One should not conclude that alcohol and other drug use is no longer an issue, but simply that opiate abuse is in the forefront of many health professionals' minds.

Data Collection: This particular issue (opiate overdoses) also highlighted some of the challenges associated with substance abuse (and most health data). The lag-time for high quality data that is collected by public entities and reported to the state is often in the time frame of 2-3 years before it is released. This is to ensure that the data has been checked for accuracy and information that could personally identify an individual has been removed. For individuals dealing with a public health emergency, it can make it difficult to measure community level outcomes in a timely manner. This may lead people to question the data and data trends, as they may not be reflective of current, emerging needs.

Given that many of the Greater Brockton CHNA communities are involved in opiate prevention / overdose prevention efforts, the CHNA may be interested in taking a role in coordinating the collection of similar datasets across communities i.e. ambulance data, review of death certificates, or coordinating the collection of hospital data. This local data would be more recent than state level data, but requires local partnerships (i.e. with Police and Fire Departments or private ambulance services) and time-consuming data mining (reading all of the death certificates in a given time period).

Youth Survey Data: The Youth Survey data (Youth Risk Behavior Survey) is a great source of youth data in the communities that utilize the survey. In the Greater Brockton CHNA, Stoughton and Avon use this survey instrument for all high school students. The CHNA is in a position to support the use of this instrument at other schools and share best practices with survey administration and possibly even costs. The CHNA would then benefit from additional consistent youth data.



# Substance Abuse: Conclusions

Coalitions: CHNA 22 is home to two experienced youth substance abuse coalitions (Avon ACES and Stoughton OASIS), as well as an Opiate Overdose Prevention Collaborative (Brockton's Mayor's Opiate Overdose Prevention Collaborative) that encompasses several CHNA towns. Furthermore, CHNA 22 is home to two new substance abuse coalitions, East Bridgewater and Holbrook, that are currently developing their own organizations, goals and strategies. Coalition work leads to important collaborations and enables policy, systems and environmental strategies to flourish. Other CHNAs in Massachusetts have provided financial and training resources to substance abuse coalitions that are in development as a way to support the development of policies, systems and environmental strategies through these groups. The CHNA may consider the opportunity to resource, train and provide mentoring between these existing coalitions, as well as helping other CHNA 22 communities who may be seeking substance abuse coalitions. There seems to be a high level of interest, urgency and need (as demonstrated by the data in this section) in CHNA 22 communities to do this work, as well as a high level of expertise already in CHNA 22. CHNA 22 is also home to a great number of policy, systems and environmental strategies to address substance abuse, and these strategies could be replicated and adapted to fit specific community needs.

# Substance Abuse: Endnotes

1. MA Department of Public Health, 2012
2. Combined data obtained from the National Survey on Drug Use and Health. <http://www.samhsa.gov>
3. 105 CMR 480.00: Minimum Requirements for the Management of Medical or Biological Waste (State Sanitary Code Chapter VIII) (2010). Retrieved from [mass.gov](http://www.mass.gov): Health and Human Services (1/25/2013). <http://www.mass.gov/eohhs/docs/dph/regs/105cmr480.pdf>.
4. Registry of Vital Records and Statistics, MA Department of Public Health
- 5-6. Taken from Description of Admissions to BSAS Contracted Programs, FY 2012. Prepared by the Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Office of Data Analytics and Decision Support (July 2013).
7. Registry of Vital Records and Statistics, MDPH; MA Inpatient Hospital, Outpatient Observation Stay and Emergency Department Discharge Databases, MA Center for Health Information and Analysis.
- 8-10. MassCHIP Data. Retrieved in 2013 from The Official Website of the Executive Office of Health and Human Services. Copyright 2014, Commonwealth of Massachusetts.
- 11-13. Data retrieved from *Avon High School: Youth Risk Behavior Survey Results, Prepared by The Outcomes Project, a Program of Health Imperatives (2013)* and *Stoughton High School Current Substance Abuse Rates (2013) vs. Massachusetts and United States (2011)*.
14. Registry of Vital Records and Statistics, MDPH; Number of Unintentional Opioid Overdose Deaths by City/Town, 2000-2013

# Asthma

## Quick Facts on Asthma



2000-2007: The numbers of MA adults currently suffering from asthma increased 16%<sup>1</sup>

Asthma is more common among children and adults who reside in households with lower incomes<sup>2</sup>

The percentage of adults aged 65 and older with asthma has also been increasing since 2000. An estimated 8.4% of older adults had asthma in 2009<sup>3</sup>

In 2006, the hospitalization rate for asthma in Massachusetts was higher among the regions surrounding Boston, Brockton, Fall River, New Bedford, Springfield, and Worcester<sup>4</sup>

Adults with asthma are 3 times more likely to miss work compared to adults without asthma<sup>5</sup>

About 60% of asthmatic adults have to limit their activities because of their asthma<sup>6</sup>

# Asthma: Introduction

In 2011, the Greater Brockton CHNA (CHNA 22) identified Asthma as a priority focus area from the 2010 CHNA 22 Community Health Needs Assessment. Key findings that supported this decision included:

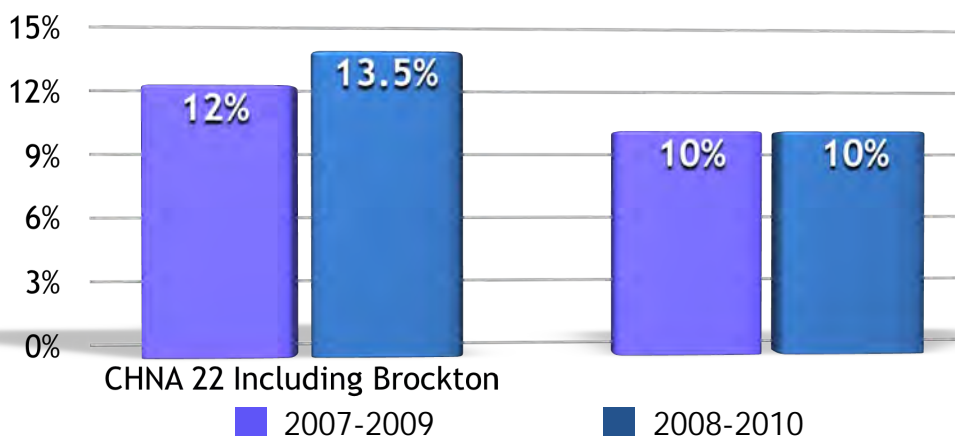
- The city of Brockton had a higher prevalence of lifetime asthma among children in kindergarten through grade 8 (15%) than the state overall (11%) during the 2006-2007 academic year.
- Race/ethnicity disparities exist in CHNA 22 for emergency department visits for asthma. Black, non-Hispanic residents and Hispanic residents each had a higher rate of emergency department visits for asthma than non-Hispanic, White residents. The pattern was the same for asthma-related emergency department visits for children age 0-9.
- From 2006-2008, the city of Brockton had higher rates of both asthma hospitalizations and emergency department visits for asthma than the state overall.
- Multiple participants in community impressions sessions identified asthma in both children and adults as a health issue of concern.
- Many key informants outside of Brockton identified childhood asthma as a chronic health problem of concern, though they noted that asthma tends to be better controlled among the population of high school age children.

Different from the other focus areas in this report, Asthma is a specific medical condition with a diagnosis. As a result, we can look directly at Asthma prevalence in the Greater Brockton CHNA area as compared to the State as a whole.



# Asthma: Data

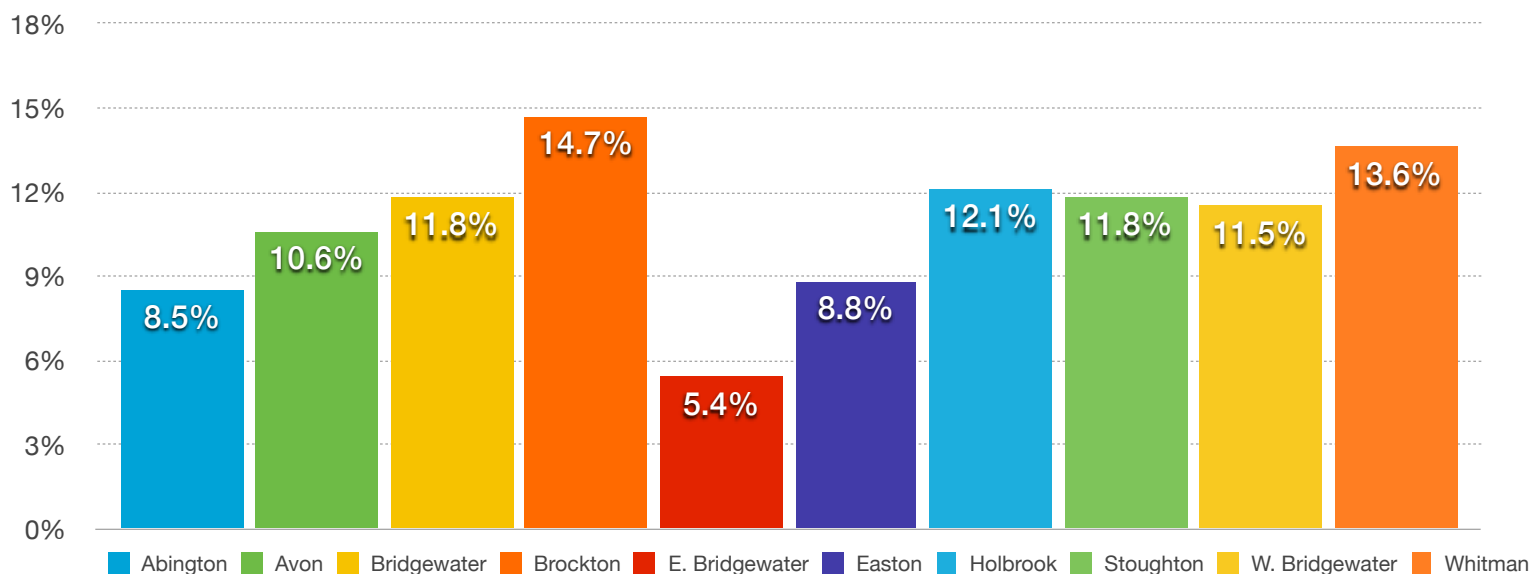
Current Asthma, 18 and Older (2008-2010)<sup>7</sup>



The prevalence of asthma is higher overall among adults 18 and older throughout the CHNA 22 towns when compared to the state as a whole.

Between 2007-2009, the State rate of current asthma was 10%, whereas the CHNA rate of asthma was 12%.

Prevalence of Asthma in Children (Kindergarten through 8th Grade), 2006-2007 and 2008-2009<sup>11</sup>



The communities of Brockton and Whitman experienced higher rates of childhood asthma when compared to the state's overall numbers between the years of 2008 and 2009. Abington, East Bridgewater, and Easton exhibited lower childhood asthma numbers when compared to State figures. These statistics are based on information that school nurses gather by looking at student health records, reports from physicians and information from parents. Data is available by individual school on the [Massachusetts Environmental Health Tracker](#) website.

# Asthma: Data

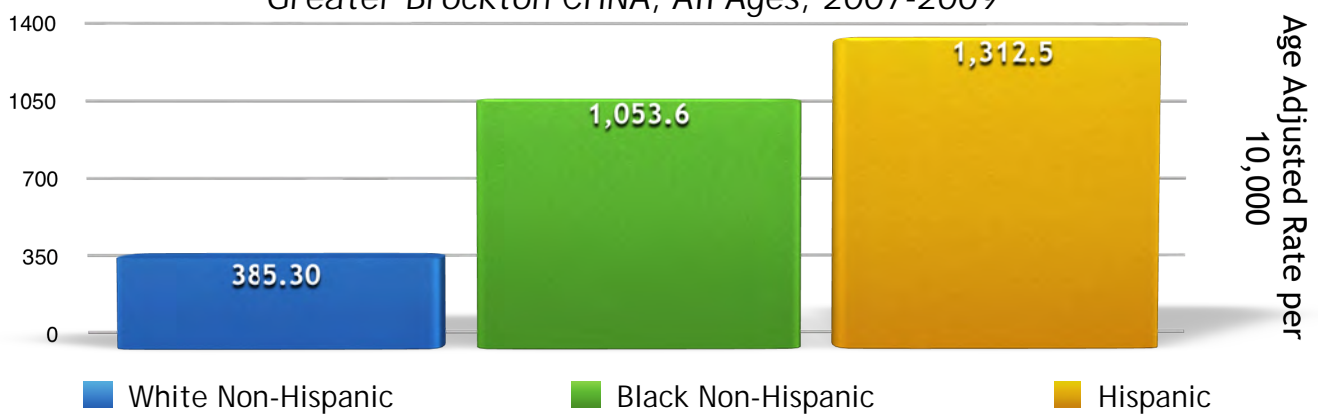
Emergency Department Visits for Asthma,  
Greater Brockton CHNA, All Ages, 2007-2009<sup>8</sup>



The rate for Emergency Department visits for Asthma was higher in Brockton than both the remainder of the CHNA 22 service area as well as the State overall. These rates are very similar to the 2006-2008 rates.

CHNA 22 (as a geographic area) experiences the 4th highest rates of Emergency Department visits for Asthma in the State when compared to other CHNAs.

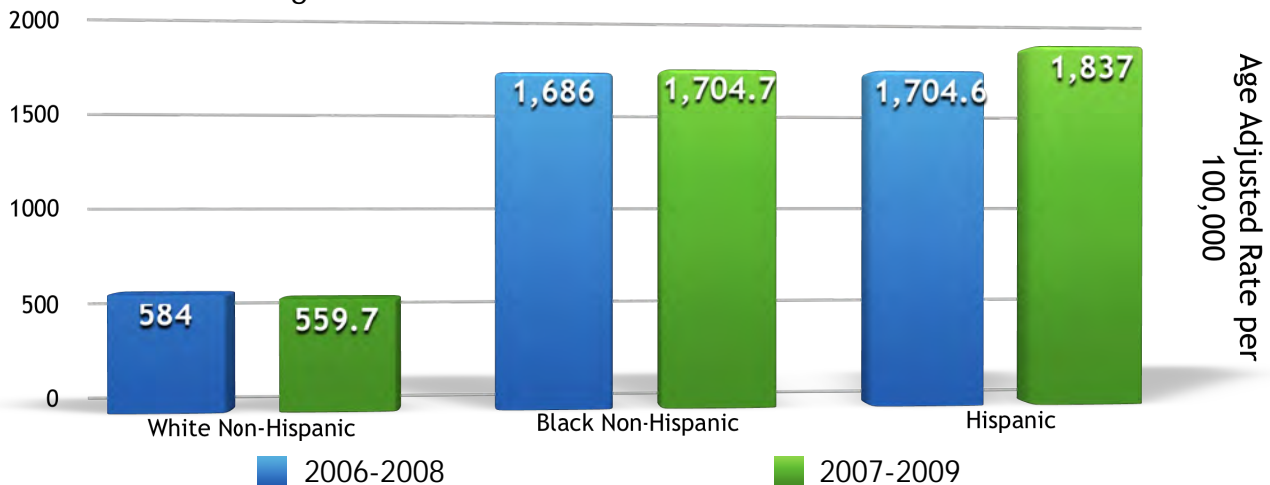
Emergency Department Visits for Asthma by Race/Ethnicity,  
Greater Brockton CHNA, All Ages, 2007-2009<sup>9</sup>



When considering race/ethnicity, there were *higher* rates of emergency department visits for asthma for Black Non-Hispanic and Hispanic individuals between 2007 and 2009. The same *trend* is seen when taking a look at children ages 0-9 and emergency department visits concerning asthma. There have been no significant changes in the rates for all ages since 2006-2008.

# Asthma: Data

Emergency Department Visits for Asthma by Race/Ethnicity, CHNA 22, Ages 0-9, 2006-2008, 2007-2009<sup>10</sup>

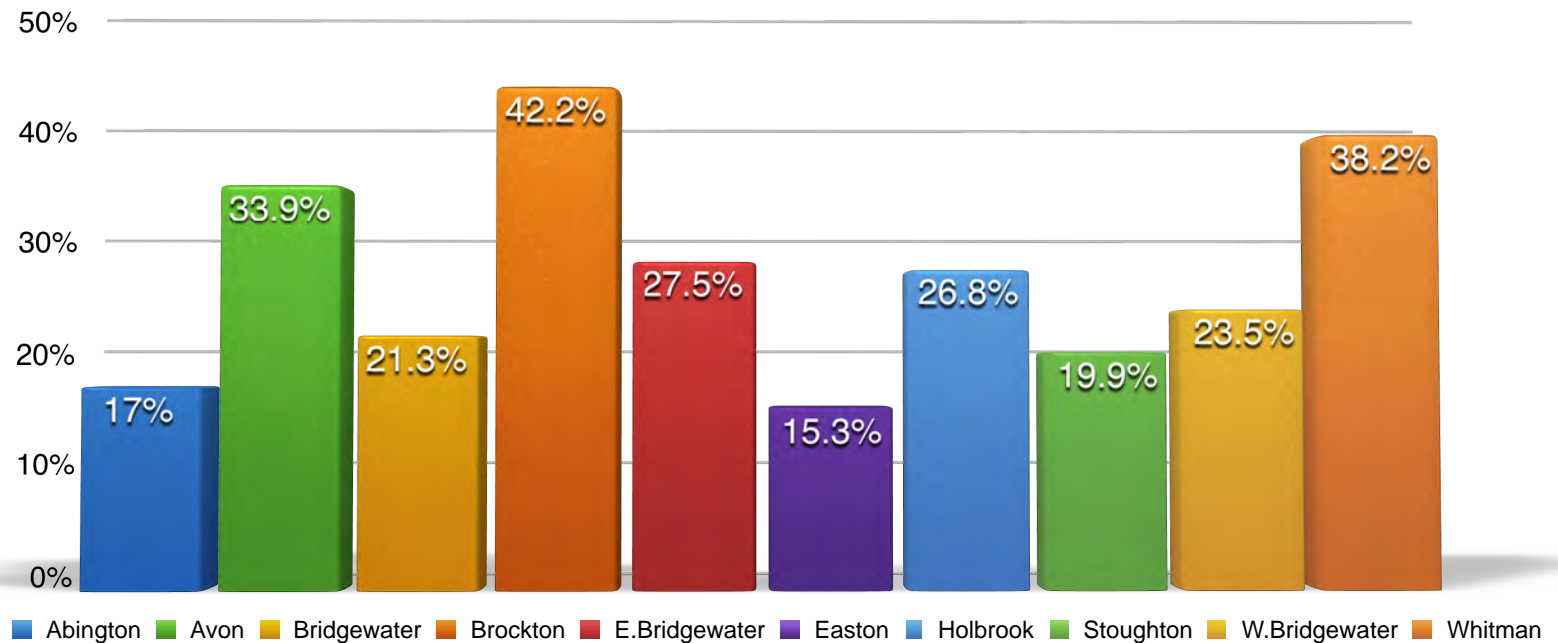


With the exception of White Non-Hispanic children, the rates for Emergency Department visits for Asthma by Race/Ethnicity for children ages 0-9 in the CHNA 22 area have slightly increased since 2006-2008. This may not represent a statically significant change, however the disparity trends remain, where white non-Hispanic children experience emergency department visits for asthma at significantly lower rates than the other races represented in the chart.



# Asthma: Data

Percentage of Houses Built Prior to 1939, CHNA 22, by Community<sup>12</sup>



Older homes can present environmental challenges for individuals with asthma as they may include different housing materials and be home to more mold, dust and other allergens. One key informant noted this as a particular challenge in Brockton as the community with the highest percentage of older housing stock in CHNA 22.



# Asthma: Data

## 2010 Environmental Justice<sup>13</sup>



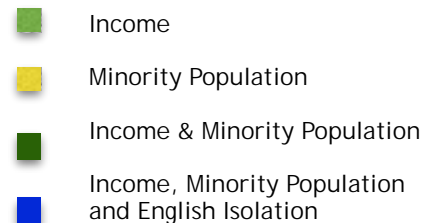
Massachusetts Environmental Justice Criteria:

Environmental Justice populations are determined by identifying all Census 2010 Block Groups that meet any of the selected following criteria:

Income: 25% or more of households earn 65% or less than the MA median household income

Minority Population: 25% or more of residents identify as a race other than white

English Isolation: 25% or more of households have no one over the age of 14 who speaks English only or very well



There are 4 communities in CHNA 22 that had designated Environmental Justice blocks as recently as 2010.

- In Brockton, 96.8% of the population reside in environmental justice blocks.
- In Easton, 7.3% of the population reside in environmental justice blocks.
- In Stoughton 24.7% of the population reside in environmental justice blocks.
- In Whitman 4.9% of the population reside in environmental justice blocks.

The Commonwealth's Executive Office of Energy and Environmental Affairs (EEA) established an Environmental Justice Policy to help address the disproportionate share of environmental burdens experienced by lower-income people and communities of color who, at the same time, often lack environmental assets in their neighborhoods. The policy is designed to help ensure their protection from environmental pollution as well as promote community involvement in planning and environmental decision-making to maintain and/or enhance the environmental quality of their neighborhoods.

# Asthma: Key Informants

What do Key Informants say about Asthma?

Individuals (adults) in Brockton, Easton, and Stoughton indicate that asthma and COPD may be/have been prevalent issues within their communities

According to the Brockton Hospital Respiratory Team, individuals in their 30's and 40's are having difficulties with asthma



There is not enough asthma education available for those in their 30's and 40's suffering from the disease

In emergency departments, some (adult) patients run out of medications, some don't (but also can't afford them)

Hispanic (adult) individuals in the Greater Brockton area use the emergency department more frequently for primary care in general

Seniors are willing to take their medications, but cost is often an issue

There has been a huge improvement in controlled asthma in children due to inhaled steroids

Brockton Hospital Respiratory Team: Believe asthma is better controlled in children (with the help of their parents) - the Respiratory Team has not seen as many children

Some children have they condition controlled, whereas others do not

Individuals in Brockton, Easton, & Stoughton indicate that asthma and COPD have been prevalent issues within their communities



# Asthma: Focus Group Themes

## *Asthma Affecting Everyday Life:*

- Stress/anxiety: “(Asthma) causes anxiety for the person and the family members”; “I think it causes anxiety for folks who are living with it”
- Management of asthma: “Learn as you go, there is no standard [for] asthma”

## *Elements that Worsen Asthma:*

- Environmental factors: “If we walk Main Street (Brockton), I find that the elements are heavier on my chest”
- Winter/cold/dry air: “In the wintertime...that was when we really had the struggles, we’d be in the hospital almost every week”
- Smoking: “Just the smell of cigarette smoke on somebody’s clothes”

## *Most Manageable Aspects of Asthma:*

- Knowing and avoiding triggers

## *Aspects of Asthma Most Difficult to Manage:*

- Having a child with asthma: “Hard to see your children suffer”
- Witness to other’s asthma: “Feeling useless watching someone else have an asthma attack”
- Cold air as a trigger: “Feels like knives going down”; “Having to avoid going outside, especially in winter”

## *Physician Assistance in Managing/Treating Asthma:*

- Education
- Trial and error with medications: “My doctor has tried all different things for allergies”

# Asthma: Focus Group Themes (cont.)

## *Self-Management of Asthma:*

- Being prepared: "Ready for cold weather"; "Having prescriptions always filled"
- Appointments with appropriate medical professionals (keeping appointments, partnerships with doctors and nurses)

## *Self-Education on Asthma:*

- Doctors: "Pediatricians were especially great at teaching without scaring"
- Internet
- Library: "I am my own advocate...I get printouts at the library"

# Asthma: Conclusions

- Generally the available data on Asthma for CHNA 22 looks very similar to the asthma data collected in the last report.
- There are significant health disparities in Emergency Department visits for Black, non-Hispanic and Hispanic individuals (as compared to White individuals) in the Greater Brockton CHNA. This is true for both youth and adults. This is an area that would benefit from additional exploration and targeted strategies to address this issue.
- One key informant noted that Hispanic individuals in the Greater Brockton area use the emergency department more frequently for primary care in general (it is a cultural issue). This may have an influence on the higher rates at which Hispanic adults and youth are seen in the emergency department for asthma related issues. However, she also noted that there has been a significant amount of work through Community Health Advocates to educate this population on the use of primary care physicians, so in the future the CHNA may begin to notice a change in this disparity. Anecdotally significant gains have been reported in collaboration between agencies on this issue. Given the disparities, this is an important area of need. Due to the lag-time in reporting community level data, it may take a few years to see outcome data related to this work.
- Key informants notes an improvement in asthma management for youth. This was also noted in the prior Community Health Needs Assessment.
- Self-Help had been grant-funded for many years to address issues of asthma in the Brockton area and had a strong asthma coalition (which served as the basis of some of the focus group data in this section). As of the writing of this report the grant had ended and the future of this critical work is uncertain. Many of their strategies addressed inequities in housing quality and issues of local pollution. Given the data in this section on the older housing stock in Brockton, as well as other communities, and the identification of Environmental Justice areas this is a key area to continue policy, systems and environmental policy work.

# Asthma: Endnotes

1-6. Massachusetts Department of Public Health (DPH)

6-11. MassCHIP Data. Retrieved in 2013 from The Official Website of the Executive Office of Health and Human Services. Copyright 2014, Commonwealth of Massachusetts.

12. Census Bureau's American Community Survey 2005-2009.

13. MA Environmental Justice Populations. Retrieved in 2014 from <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/cen2010ej.html>

# Nutrition and Fitness

## MA Quick Facts on Nutrition and Fitness

According to a recent study published in *Obesity*, over \$3.5 billion of medical expenses in Massachusetts are due to adult obesity<sup>1</sup>

All CHNA 22 schools have some type of wellness policy in their respective districts, but wellness committee information was not readily available.

76% of high school students in MA are not eating the recommended 5 or more daily servings of fruits and vegetables<sup>2</sup>

More than three-fourths of adults in MA are not eating the recommended 5 or more daily servings of fruits and vegetables<sup>3</sup>

July 2010: "An Act Relative to School Nutrition" is signed into law, making the MDPH and other agencies responsible for developing standards related to nutritional standards for school meals and other related measures<sup>4</sup>



# Nutrition and Fitness

## Overview:

In 2011, the Greater Brockton CHNA Steering Committee identified Nutrition and Fitness as one of the 4 areas of priority based on the 2010 Greater Brockton CHNA Community Health Assessment. This decision was supported by the following key findings from that report:

- A lower percentage of CHNA residents age 18 and older (21%) reported consuming at least five fruits or vegetables per day than residents of the state overall in the same age group.
- approximately 36% of tenth-graders in Brockton, 38% in West Bridgewater and 41% in Stoughton were overweight or obese during the 2008-2009 school year. Approximately 31% of tenth-graders in the state overall were overweight or obese in that same time period.
- In community impression sessions several themes related to nutrition and fitness emerged, including:
  - eating unhealthy foods due to an inability to afford healthy food or low-quality produce available in supermarkets
  - barriers to physical activity such as the expense of after school activities for children, parents not wanting to let children outside due to fears of needles and trash on the ground, “stranger danger” and playgrounds in poor condition.
- Key informants outside of Brockton indicated issues of:
  - obesity in youth and adults
  - lack of exercise among youth and adults
  - parents have no time to fix healthy meals due to being stressed, working, or otherwise busy
  - lack of sidewalks or sidewalks in poor condition
  - children not engaging in unstructured play

In this section you will find some proxy measures for nutrition and fitness including data about local accessibility to healthy food and fitness opportunities. In addition you find data about diabetes, as obesity is a significant factor in diabetes rates.

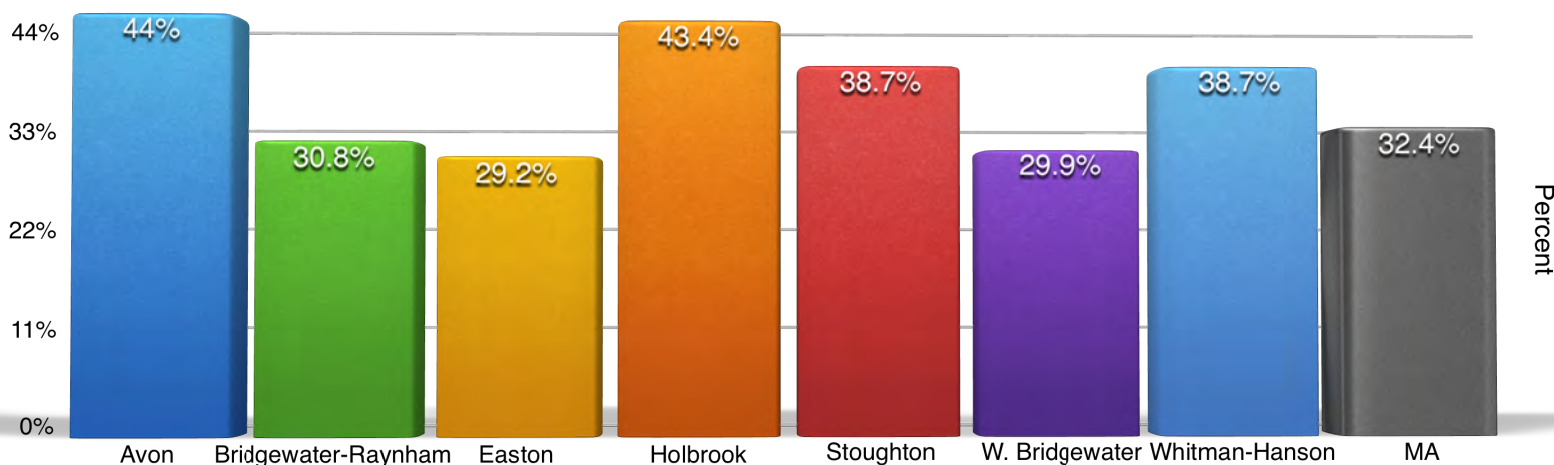




# Nutrition and Fitness: Data

## Nutrition and Fitness: Youth

Overweight/Obesity in Children,  
By School District, Grades 1, 4, 7, 10: 2011<sup>5</sup>



All included school districts in the Greater Brockton CHNA have obesity rates of over 25%. Avon, Holbrook, Stoughton and Whitman-Hansen all report youth overweight / obesity rates higher than the state average.

Avon shows the highest percentage of overweight/obese children with 44%, and Easton reports the lowest percentage at 29.2%.

The table below highlights three CHNA communities where there is significant differences between the percentages of overweight / obese male and female students.

In 3 districts there is significant difference between the percentage of males and females reporting overweight / obesity.

Town	% Overweight/ Obese Males	% Overweight / Obese Females
Easton	33.9%	24.5%
Holbrook	47.8%	38.7%
West Bridgewater	34.0%	25.4%

# Nutrition and Fitness: Key Informants

## What do Key Informants Say about Youth Nutrition and Fitness?

In Avon, some children have never eaten healthy foods, such as clementines. The BOKS program and Tufts nutritionists were brought into the schools to ameliorate this issue and get students moving in the mornings

Holbrook has the second highest rate of obese and overweight students within the CHNA 22 service area - a lack of funds has made it difficult to replace broken/worn out equipment, making it difficult for students to participate in physical activity

Whitman has experienced an *increase* in the prevalence of diabetes, but it has been reported that all ordered state dietary/nutritional guidelines are followed for student meals



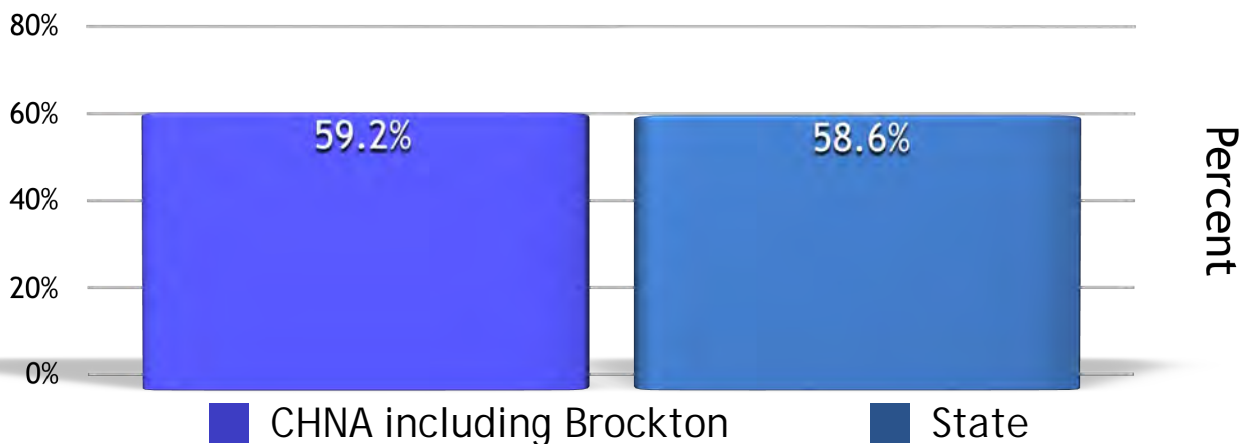
# Nutrition and Fitness: Data

## Nutrition and Fitness: Adults

More than 1/2 of adults in Massachusetts are obese.<sup>6</sup>

In 2011, MA Black adults were 43% more likely to be obese, and Hispanic adults were 40% more likely to be obese than White adults.<sup>7</sup>

### Overweight/Obese Adults, Age 18 and Older, 2008-2010<sup>8</sup>

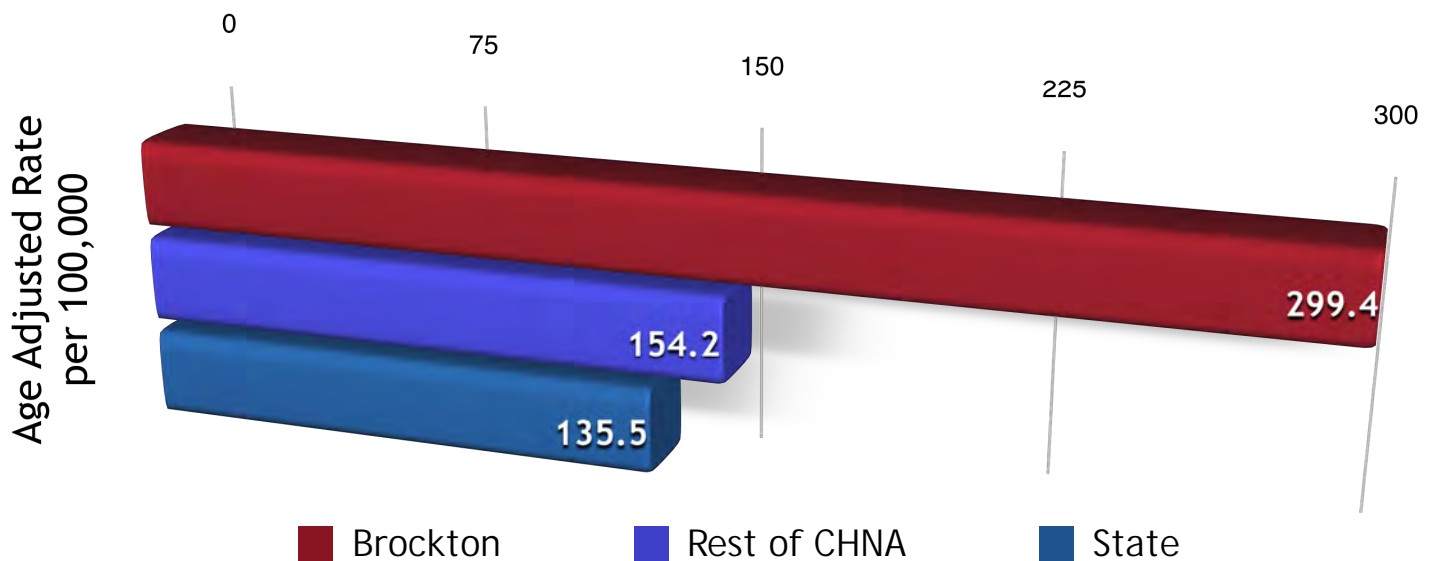


Rates of overweight/obesity among adults in the CHNA area are similar to the State rates.

# Nutrition and Fitness: Data

One way to examine management of a chronic disease, like Diabetes, is to examine hospitalization rates.

## Hospitalizations for Diabetes, All Ages, 2007-2009<sup>9</sup>



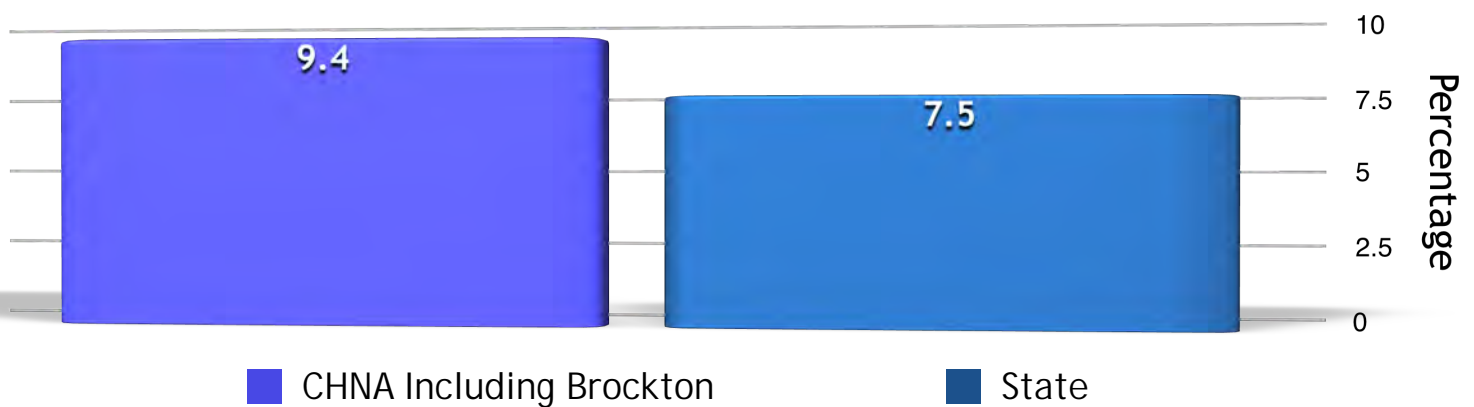
Between the years of 2007 and 2009, hospitalizations for diabetes among Brockton and the other CHNA towns were higher when compared to the state's overall numbers. The City of Brockton has experienced an increase in hospitalizations for diabetes when compared to the previous 2-year time period of 2006-2008 as shown in the table below. The rates for the rest of the CHNA and the State overall decreased in that same time period. All rates are Age Adjusted per 100,000.

	2006-2008	2007-2009
<b>Brockton</b>	284.7	299.4
<b>Rest of CHNA</b>	163	154.2
<b>MA</b>	136.8	135.5

# Nutrition and Fitness: Data

*In the past ten years, the percentage of adults with a diabetes diagnosis in Massachusetts has increased 28% (5.8% in 2000 vs. 7.4% in 2010)<sup>10</sup>*

Ever Diagnosed with Diabetes, Adults 18 and Older, 2008-2010<sup>11</sup>

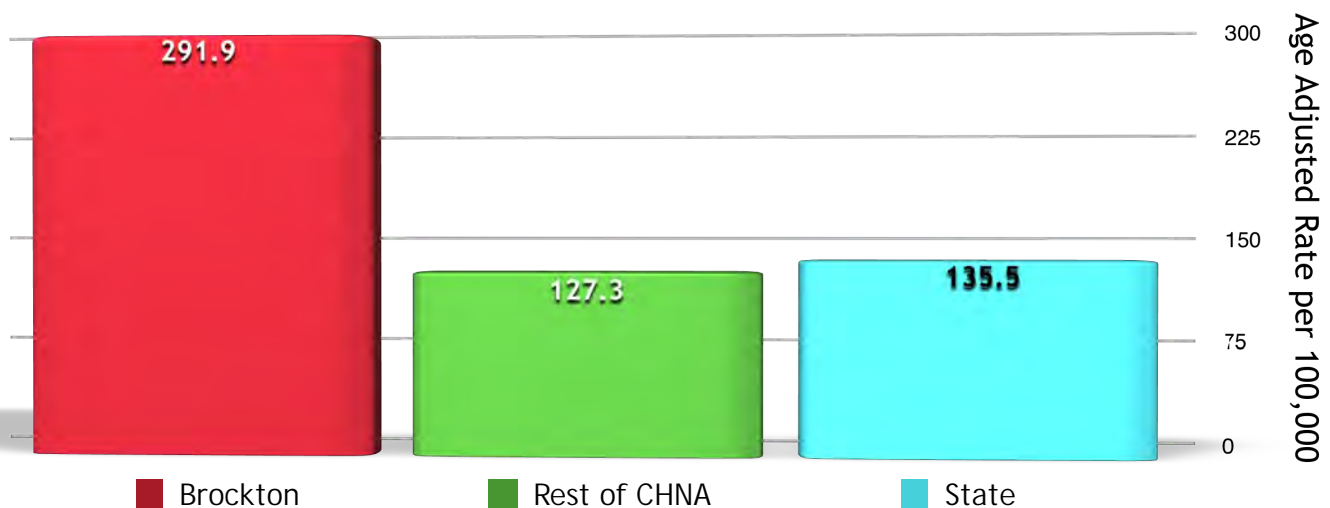


A slightly greater percentage of individuals (age 18 and older) among the CHNA have been diagnosed with diabetes when compared to the state from 2008-2010.

Between 2007-2009 the percentage of adults ages 18 and older in the Greater Brockton CHNA area "ever diagnosed with diabetes" was approximately 8%, as was the state average. Since that time, the rate among CHNA residents has increased to 9.4%, an 18% increase (2008-2010).

# Nutrition and Fitness: Data

Emergency Department Visits for Diabetes,  
Greater Brockton CHNA, All Ages, 2007-2009<sup>12</sup>



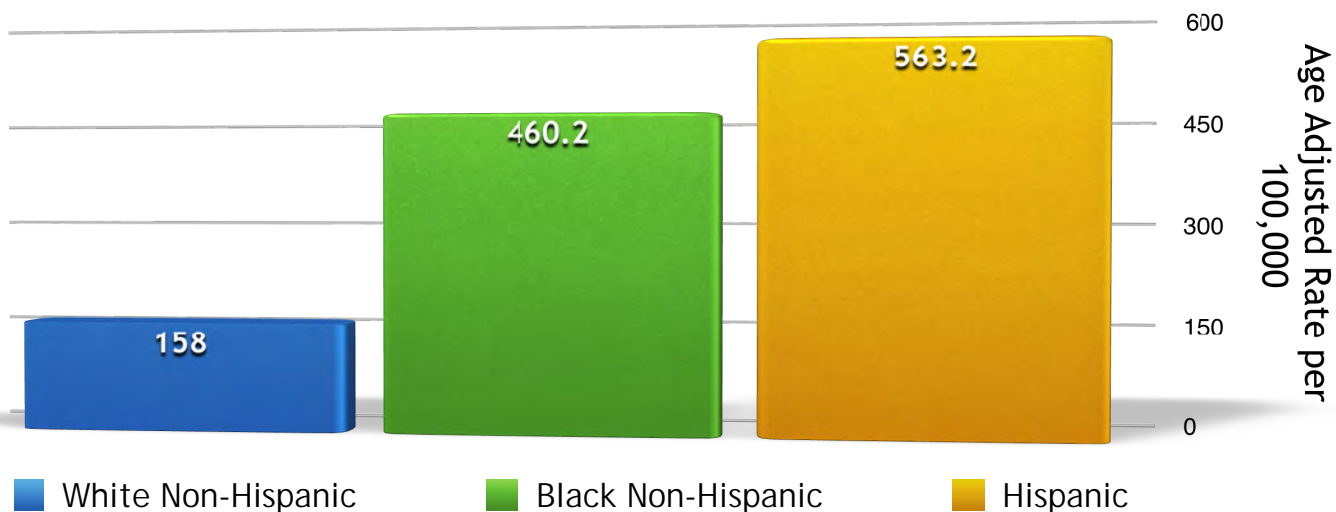
Emergency department visits for diabetic individuals were also higher for individuals in Brockton than the remainder of the CHNA towns as well as the state.

Similar to hospitalizations, between the years of 2007 and 2009, emergency department visits for diabetes among Brockton and the other CHNA towns were higher when compared to the state's overall numbers. The City of Brockton has experienced an increase in emergency department visits for diabetes when compared to the previous 2-year time period of 2006-2008 as shown in the table below. The rates for the rest of the CHNA and the State overall decreased in that same time period. All rates are Age Adjusted per 100,000.

	2006-2008	2007-2009
<b>Brockton</b>	282.5	291.9
<b>Rest of CHNA</b>	132.2	127.3
<b>MA</b>	143.2	135.5

# Nutrition and Fitness: Data

Hospitalization for Diabetes by Race/Ethnicity, All Ages, 2007-2009, Greater Brockton CHNA<sup>13</sup>



Disparities exist when examining hospitalization rates for Diabetes by race / ethnicity.

	2006-2008	2007-2009
<b>White Non-Hispanic</b>	164	158
<b>Black Non-Hispanic</b>	403	460.2
<b>Hispanic</b>	469	563.2

# Nutrition and Fitness: Key Informants

## What do Key Informants say about Nutrition and Fitness?

Obesity was identified as a top community concern in the 2012 Good Samaritan Medical Center Population Health Improvement Report by both survey respondents and focus group participants<sup>14</sup>

Good Samaritan focus group participants identified the need for increased availability of public benefits to address the food availability issue

Brockton and Stoughton have higher incidences of diabetes when compared to the nation

CHNA focus group participants and Good Samaritan focus group participants both identifies *limited availability of fresh and healthy foods as a local challenge to proper nutrition*

Both the Brockton COA and VNA offer blood glucose screenings

Stoughton COA offers specialty workshops on diabetes

Abington: "diabetes is a prevalent issue among seniors"





# Nutrition and Fitness: Data

## Farmer's Markets in the Greater Brockton CHNA Area

	Dates	WIC Accepted	EBT/SNAP Accepted
Abington Farmer's Market	Every other Saturday, July-September	No	No
Brockton City Hall Plaza	Fridays, July-October	Yes	Yes
Brockton Fairgrounds	Saturdays, July-October	Yes	No
Easton Farmer's Market	Tuesdays and Saturdays, May-October	Yes	Yes
Stoughton Farmer's Market	Saturdays, May-October	Yes	Yes

## Gyms and Fitness Centers, Greater Brockton CHNA

Town	Number of Gyms	Residents per Gym
Abington	3	5,328
Avon	0	n/a
Bridgewater	5	1,568
Brockton	8	11,726
Easton	9	2,568
East Bridgewater	5	2,759
Holbrook	3	3,597
Stoughton	7	3,852
West Bridgewater	3	2,305
Whitman	0	n/a

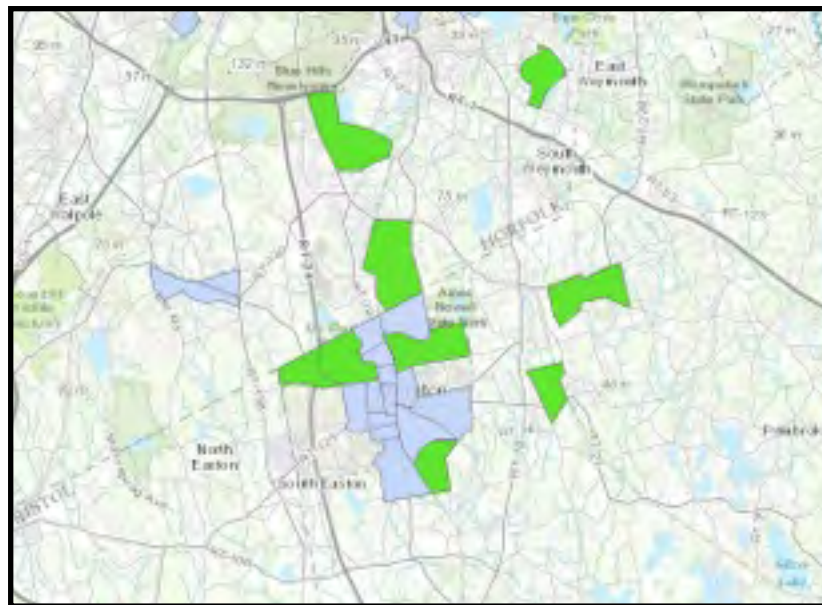
# Nutrition and Fitness: Data

## Map of Food Deserts in the Greater Brockton CHNA Area

This map illustrates areas that are designated in as Food Deserts in the Greater Brockton area.

The areas in green represent low-income census tracts where a significant number or share of residents is greater than 1 mile (in urban communities) or 10 miles (in rural communities) from the nearest supermarket.

The areas in blue represent census tracts with a poverty rate of 20% or higher, or tracts with a median family income of less than 80% of median family income for the the state or metropolitan area.



# Nutrition and Fitness: Focus Group Themes

## *Barriers to Healthy Food:*

- Cost
- Geography/proximity to healthy food options
- Time: "Go for what is quickest and it's not always the healthiest"
- Lack of education on how to shop, prepare produce; portion sizes
- "Learning how to figure out carbs and sugars"

## *What makes it easier to be physically active?*

- Love to walk
- Availability of parks and sidewalks
- Support of peers and family
- Culture of walking in one's neighborhood

## *Barriers to Physical Activity:*

- Time: "I work two jobs, [there's] not enough time or I'm too tired"
- Self-motivation and discipline
- Poor sidewalks, no safe place to walk: "We actually drive to the high school to walk the track"

# Nutrition and Fitness: Policy Change

## Local Examples of Policy Change for Nutrition and Fitness

Town	Area of Focus	Policy Change
Abington	Nutrition	Farmer's Market
Avon	Physical Fitness	BOKS program before school to increase student physical activity
Brockton	Nutrition	Farmer's Market accepts WIC and EBT/SNAP at one of the city's markets
	Physical Fitness	Hillstrom Farm Park clean up and revitalization as blueprint for claiming undeveloped and vacant parts of the city for safe recreation
	Nutrition	Community Gardens Project
	Nutrition	VNA and COA offer blood glucose screenings
Easton	Nutrition	Farmer's Market accepts WIC and EBT/SNAP
	Nutrition	Collaboration between Children's Museum and Signature Healthcare/Brockton Hospital for exhibits on healthy eating and increasing physical activity for children and families
	Nutrition	No vending machines in schools except for water
Stoughton	Nutrition	Farmer's Market accepts WIC and EBT/SNAP
	Nutrition/Physical Activity	Diabetes Prevention Class is offered at the local YMCA; individuals can be referred by physicians
	Physical Activity	Expansion of walking paths at Halloran Park / CAPP playground
	Physical Activity	Storywalk Trail implemented in town conservation area to increase family use of trails
	Nutrition	Community Gardens Project at Youth/Senior Center and Low Income Housing Complex

# Nutrition and Fitness: Recommendations

- Individuals in focus groups discussed access to healthy foods, including geography and proximity as issues. These comments are validated, particularly in Brockton by the map of food desert areas and lack of grocery stores in low income areas. This is an area of need that could be addressed through collaborations and environmental change.
- An area of need for additional data and exploration is the role of culture in nutrition and physical activity for local residents.
- The Youth Risk Behavior Survey is an instrument that also collects data on youth nutrition and physical activity habits, including screen time. See the discussion in the section on Substance Abuse for additional recommendations related to this survey tool.

# Nutrition and Fitness: Notes

1. Trogon, JG, et al. 2012
- 2-3. 2011 MA BRFSS (Behavioral Risk Factor Surveillance Survey)
4. An Act Relative to School Nutrition. (2010, July 30). In Session Laws: CHAPTER 197 of the Acts of 2010 - [malegislature.gov](http://malegislature.gov). Retrieved February 13, 2013, from <http://www.malegislature.gov/Laws/SessionLaws/Acts/2010/Chapter197>
5. Information extracted from "The Status of Childhood Weight in Massachusetts, 2011: Preliminary Results from Body Mass Index Screening in Massachusetts Public School Districts, 2009-2011." December 2012.
6. Massachusetts Department of Public Health, 2013
7. 2011, Massachusetts BRFSS
- 8, 9, 11-13. MassCHIP Data. Retrieved in 2013 from The Official Website of the Executive Office of Health and Human Services. Copyright 2014, Commonwealth of Massachusetts.
10. 2000 and 2010 MA BRFSS
14. 2012 *Population Health Improvement Report*. Generated by Good Samaritan Medical Center, a Steward Family Hospital
15. Information extracted from United States Department of Agriculture, Economic Research Service, Food Access Research Service Retrieved March 25, 2014 from: <http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx#.UzHzqtzjRuO>