



Marlborough Hospital

*Supplemental Marlborough & Hudson Data Sheet
MetroWest Community Health Assessment*



Marlborough Hospital
A Member of UMass Memorial Health Care

TABLE OF CONTENTS

INTRODUCTION	1
COMMUNITY HEALTH ASSESSMENT OVERVIEW	1
MARLBOROUGH HOSPITAL	1
METHODS	2
FINDINGS	3
DEMOGRAPHIC AND ENVIRONMENTAL CHARACTERISTICS	3
Demographics	3
Social and Economic Environment	3
Facilitators and Barriers of the Social and Physical Environment	5
HEALTH OUTCOMES AND BEHAVIORS	7
Perceived Community and Individual Health Status	7
Mortality and Hospitalization	10
Healthy Eating, Physical Activity, and Obesity	12
Mental Health	15
Substance Use and Abuse (Alcohol, Tobacco, and Illegal Drugs)	16
HEALTHCARE ACCESS AND UTILIZATION	17
Challenges to Accessing Health Care Services	17
Health Information Sources	20
VISION FOR THE FUTURE	21

INTRODUCTION

COMMUNITY HEALTH ASSESSMENT OVERVIEW

Improving the health of a community is critical to ensuring the quality of life of its residents and fostering sustainability and future prosperity. Understanding the current health status of a community—and the multitude of factors that influence health—is important in order to identify priorities for future planning and funding, the existing strengths and assets on which to build upon, and areas for further collaboration and coordination across organizations, institutions, and community groups.

To this end, a collaborative group of MetroWest area agencies and organizations, including Marlborough Hospital, MetroWest Medical Center, Southboro Medical Group/Atrius Health, MetroWest Health Foundation, Edward M. Kennedy Community Health Center, and Community Health Care Coalition of MetroWest, worked together on a comprehensive community health assessment effort for the entire MetroWest region. This process covered 22 communities and will be used as a foundation for future collaborative planning across the region.

In addition to the comprehensive CHA, this document serves as a supplementary data brief focusing on the key assessment findings for Marlborough Hospital’s specific service area of Marlborough and Hudson. Data in this supplemental brief examine the severity and magnitude of priority health needs of these towns as well as perceptions by community residents, providers, and leaders of areas of concern, community strengths, and potential opportunities for action. While the assessment process examines data across the communities, it includes a specific focus on those who are most underserved. This data supplement on Marlborough and Hudson, along with the larger MetroWest community health assessment, aims to guide Marlborough Hospital on its future community outreach activities and partnerships.

MARLBOROUGH HOSPITAL

Marlborough Hospital, a community resource since 1890, is served by a medical staff of more than 300 primary care physicians and specialists. The hospital provides a wide range of inpatient and outpatient medical, surgical and ancillary services including: 24 / 7 emergency care; comprehensive cardiac services; general, minimally invasive and orthopedic surgery; diagnostic imaging; medical oncology and radiation oncology; and a behavioral health unit.

As a member of UMass Memorial Health Care, Marlborough Hospital provides patients with a direct link to the advanced medical resources of UMass Memorial Medical Center in Worcester, a nationally recognized academic medical center. Marlborough Hospital is fully accredited by the Joint Commission and is certified as a primary stroke service by the Massachusetts Department of Public Health. Marlborough Hospital is located at 157 Union Street in Marlborough, MA, has a Physical Rehabilitation site at 340 Maple Street in Marlborough and an Imaging Center, outpatient endoscopy services and a specialty physician suite located at 28 Newton Street in Southborough, MA. For more information please visit: www.marlboroughhospital.org.

METHODS

The MetroWest community health assessment utilized a mixed-methods approach, including the following:

- Analysis of **existing social, economic, and health data** from secondary sources, including U.S. Census Bureau, MA Department of Public Health (vital records), Behavioral Risk Factor Surveillance Survey (BRFSS), MetroWest Adolescent Health Survey (similar to the Youth Risk Behavior Survey), and U.S. Labor Statistics among other sources. The assessment aimed to gather data at the community level, including from Marlborough and Hudson, although in some instances only county level data were available.
- An **online survey** to community residents and providers in English, Spanish, and Portuguese. The survey was administered online from May-June 2013. The survey link was disseminated through the local media as well as professional and organizational networks and list serves. Among the over 670 MetroWest respondents who completed the survey, 92 survey respondents lived in either Hudson (48 respondents) or Marlborough (44 respondents). Frequencies were computed and are included in this supplemental data sheet.
- **Qualitative discussions** from focus groups and interviews. A total of 18 focus groups were conducted during the assessment data collection period. Of these 18, 4 were specifically conducted with population groups in Marlborough or Hudson or affiliated with Marlborough Hospital. A total of 51 key informant interviews were conducted previously with leaders across the region for a MetroWest Health Foundation strategic planning process. Regional themes from these interviews were also included in the assessment.

FINDINGS

DEMOGRAPHIC AND ENVIRONMENTAL CHARACTERISTICS

This section provides a brief overview of the population of the Marlborough Hospital primary service area and perceptions of its social and environmental influencers.

Demographics

Table 1 details the individual characteristics of the state, Marlborough, and Hudson communities. Between 2000 and 2011, Marlborough experienced the greatest population increase from 36,255 to 38,087 (5.1%), nearly twice as large of a percent change at the state level (2.6%). Hudson's population also exceeded the state's at 4.0%. In terms of age distribution, most of Marlborough's population was between the ages of 25 to 44 years old (32.4%) while Hudson's population had the greatest percent between 45 to 64 years old (29.7%). Quantitative data also illustrate that just over three-fourths of the Massachusetts population is White (76.9%) which was largely consistent with Marlborough (79.2%). Both at the state level and in Marlborough, the Hispanic population was the next largest racial/ethnic group (9.3% and 9.2%, respectively). Hudson's population followed a similar pattern, the proportion of its population that identified as White was even larger (90.5%).

Table 1: Population Demographics by Massachusetts, Marlborough, and Hudson, 2000 and 2011

	Massachusetts	Marlborough	Hudson
Population			
2000 Population	6,349,097	36,255	18,113
2011 Population	6,512,227	38,087	18,845
% Change 2000 to 2011	2.6%	5.1%	4.0%
Age Distribution*			
Under 18 yrs old	21.8%	20.8%	22.6%
18 to 24 yrs old	10.3%	7.0%	5.5%
25 to 44 yrs old	26.8%	32.4%	27.8%
45 to 64 yrs old	27.4%	27.5%	29.7%
65 yrs old and over	13.7%	12.4%	14.5%
Race/Ethnicity*			
White	76.9%	79.2%	90.5%
Black	6.1%	2.3%	0.5%
Asian	5.3%	5.6%	2.5%
Hispanic/Latino	9.3%	9.2%	3.2%
Other	2.4%	3.7%	3.3%

*NOTE: Age Distribution and Race/Ethnicity data are derived from the 2007-2011 American Community Survey 5-Year Estimates

DATA SOURCE: DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 Census and American Community Survey 5-Year Estimates, 2007-2011

Social and Economic Environment

In focus groups, Marlborough was seen as having more economic diversity than other communities in the surrounding area. According to the 2011 American Community Survey, household median income in both Marlborough and Hudson was higher than that for Massachusetts as a whole (Table 2). While the

poverty rates across much of the region varied, the percentage of families in poverty in all both Marlborough and Hudson was substantially lower than that of the state (7.6%). Further, the unemployment rate in these communities was also lower than statewide (8.1%).

Focus group respondents reported that housing in the MetroWest region is expensive and a challenge for many residents; they noted that the economic downturn in recent years has exacerbated these challenges. As illustrated by the quantitative data, monthly mortgage expenditures in Hudson (\$2,139/month) are the lowest of any community in the MetroWest region, and lower than that of the state overall (\$2,145/month). Monthly rental costs were slightly lower in Marlborough (\$1,064/month) than in Hudson (\$1,104/month). This compares to \$1,037/month on average for the state.

While absolute housing costs are important to consider, they do not necessarily speak to how housing prices compare to the overall cost of living. Thus data detailing the percentage of renters and owners whose housing costs comprise 35% or more of their household income is also included. Though below the state average for both renters and owners, approximately one-third of both Marlborough and Hudson renters spent at least 35% of their household income on housing costs, while just under 30% of owners reported the same.

MetroWest residents voiced concerns about crime in the region, which many attributed to the downturn in the economy. Quantitative data show great variability in crime rates between Marlborough and Hudson. While Marlborough (472.5 per 100,000 population) had a violent crime rate similar to that statewide (428.4 per 100,000 population), Hudson’s was substantially lower at 52.1 per 100,000 population. Though property crime rates in both communities were lower than that reported statewide, Hudson’s property crime rate (1098.7 per 100,000 population) was considerably lower than Marlborough’s (1995.7 per 100,000 population).

Table 2: Social and Economic Environment by Massachusetts, Marlborough, and Hudson, 2011

	Massachusetts	Marlborough	Hudson
Income, Poverty, Unemployment			
Median Household Income	\$65,981	\$72,853	\$76,714
% Families Below Poverty Level	7.6%	3.7%	2.8%
Unemployment Rate	8.1%	6.1%	7.7%
Housing			
Monthly Rent Costs	\$1,037	\$1,064	\$1,104
Monthly Mortgage Costs	\$2,145	\$2,220	\$2,139
% Renters Whose Housing Costs are 35% + of Household Income	40.4%	34.1%	32.7%
% Owners (with mortgage) Whose Housing Costs are 35% + of Household Income	30.6%	27.9%	26.1%
Crime and Safety*			
Violent Crime Rate	428.4	472.5	52.1
Property Crime Rate	2258.7	1995.7	1089.7

DATA SOURCE: DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 Census and American Community Survey 5-Year Estimates, 2007-2011

*DATA SOURCE: Federal Bureau of Investigation (2011), Uniform Crime Reports, Offenses Known to Law Enforcement, by State, by City, 2011

NOTE: Violent Crime includes murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault

NOTE: Property Crime includes burglary; larceny-theft; motor vehicle theft; and arson

Facilitators and Barriers of the Social and Physical Environment

Survey respondents noted that many facilities and resources in their community make it easier to be healthy, while issues around transportation and the prevalence of fast food restaurants challenge community health. Table 3 shows that survey respondents in Marlborough and Hudson cited the location and availability of the following as the services and resources in their community that make it easier to be healthy: safety in the neighborhood, access to fresh fruits and vegetables, and number and location of dental services. When asked what made it harder to be healthier, residents of these two communities cited the location and availability of fast food restaurants and public transportation.

Table 3: Percent CHA Survey Respondents Citing Community Aspects that Make it Easier or Harder to be Healthy, 2013

	Marlborough (N=44)	Hudson (N=48)
Number/location of grocery stores/bodegas		
Easier to be healthy	47.5%	53.2%
Neither easier nor harder	47.5%	46.8%
Harder to be healthy	5.0%	0.0%
Number/location of fast food restaurants		
Easier to be healthy	4.9%	6.2%
Neither easier nor harder	48.8%	54.2%
Harder to be healthy	46.3%	39.6%
Number/location of parks or recreation center		
Easier to be healthy	39.0%	58.7%
Neither easier nor harder	41.5%	23.9%
Harder to be healthy	19.5%	17.4%
Number/location of medical services		
Easier to be healthy	45.0%	48.9%
Neither easier nor harder	42.5%	36.2%
Harder to be healthy	12.5%	14.9%
Number/location of dental services		
Easier to be healthy	50.0%	66.0%
Neither easier nor harder	37.5%	31.9%
Harder to be healthy	12.5%	2.1%
Number/location of mental health services		
Easier to be healthy	27.5%	34.0%
Neither easier nor harder	47.5%	34.0%
Harder to be healthy	25.0%	31.9%
Number/location of social services		
Easier to be healthy	17.9%	29.8%
Neither easier nor harder	56.4%	48.9%
Harder to be healthy	25.6%	21.3%
Community culture/norms about health		
Easier to be healthy	22.5%	26.7%
Neither easier nor harder	52.5%	55.6%

	Marlborough (N=44)	Hudson (N=48)
Harder to be healthy	25.0%	17.8%
Walkability of the community (e.g. sidewalks, street lights)		
Easier to be healthy	52.5%	76.6%
Neither easier nor harder	17.5%	8.5%
Harder to be healthy	30.0%	14.9%
Safety of your neighborhood		
Easier to be healthy	60.0%	80.9%
Neither easier nor harder	35.0%	14.9%
Harder to be healthy	5.0%	4.3%
Access to fresh fruits and vegetables		
Easier to be healthy	65.0%	84.8%
Neither easier nor harder	25.0%	10.9%
Harder to be healthy	10.0%	4.3%
Access to public transportation		
Easier to be healthy	10.0%	19.6%
Neither easier nor harder	47.5%	34.8%
Harder to be healthy	42.5%	45.7%
Environmental hazards		
Easier to be healthy	7.7%	24.4%
Neither easier nor harder	69.2%	48.9%
Harder to be healthy	23.1%	26.7%
Water quality		
Easier to be healthy	45.0%	45.7%
Neither easier nor harder	45.0%	26.1%
Harder to be healthy	10.0%	28.3%
Air quality		
Easier to be healthy	37.5%	50.0%
Neither easier nor harder	52.5%	32.6%
Harder to be healthy	10.0%	17.4%
Housing affordability		
Easier to be healthy	20.5%	26.1%
Neither easier nor harder	53.8%	41.3%
Harder to be healthy	25.6%	32.6%
Employment status		
Easier to be healthy	35.0%	41.3%
Neither easier nor harder	42.5%	47.8%
Harder to be healthy	22.5%	10.9%
Educational opportunities within the community		
Easier to be healthy	37.5%	40.9%
Neither easier nor harder	45.0%	40.9%
Harder to be healthy	17.5%	18.2%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

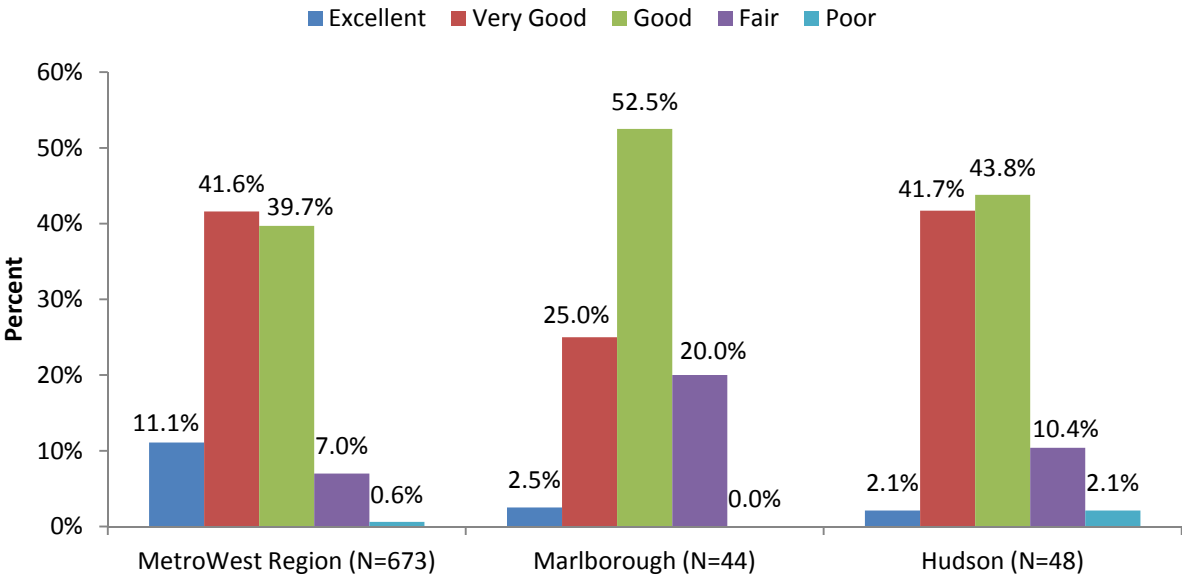
HEALTH OUTCOMES AND BEHAVIORS

This section provides an overview of leading health conditions and behaviors in the Marlborough Hospital service area by examining self-reported behaviors, incidence, hospitalization, and mortality data in addition to discussing the pressing concerns that residents and leaders identified during focus groups and interviews. Due to data constraints, some measures are available only by county as a whole, and not individual towns.

Perceived Community and Individual Health Status

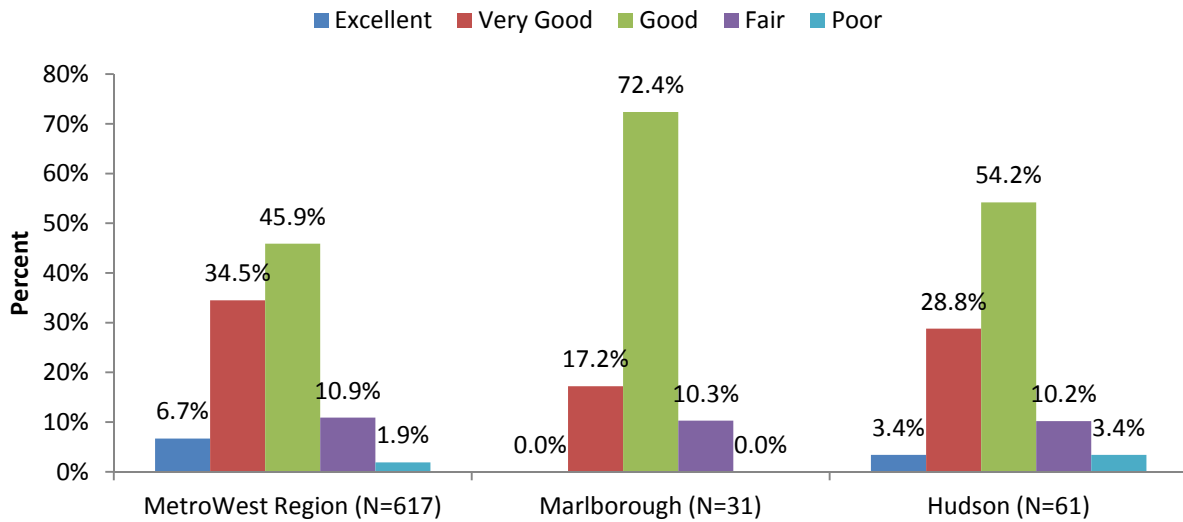
Most residents believed that their community was in overall good health. In the 2013 MetroWest CHA survey, respondents were asked to describe the health of their overall community where they live and where they work. Among respondents who reside across all communities, 92.4% described their health of their resident community as good (39.7%) or excellent/very good (52.7%), while only 7.6% said their community’s health was fair or poor (Figure 1). However, these responses varied in Marlborough and Hudson. In Marlborough, 80.0% described their health of their resident community as good (52.5%) or excellent/very good (27.5%), while 20.0% said their community’s health was fair or poor. In Hudson 87.6% described their health of their resident community as good (43.8%) or excellent/very good (43.8%), while 12.5% said their community’s health was fair or poor. Though these percentages varied for respondents who work in the region and specifically in Marlborough and Hudson, the overall pattern largely stayed the same (Figure 2).

Figure 1: Perceived Community Health Status of Where Survey Respondents Lives, 2013



DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

Figure 2: Perceived Community Health Status of Where Survey Respondents Works, 2013



NOTE: Responses for those who specifically work in the MetroWest Region, Marlborough, and Hudson (may live in the communities or elsewhere)

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

Survey respondents were asked about their primary issues that have the largest impact on their community of residence and themselves/their family (Table 4). There were some differences between respondents' personal health issues and perceived community health issues. In Marlborough, top personal health concerns included heart disease, mental health, and overweight or obesity while top community concerns included mental health, drugs and alcohol abuse, and overweight and obesity. In Hudson, top personal health concerns included heart disease, aging problems, cancer, and diabetes while top community concerns included mental health, overweight and obesity, and drugs and alcohol abuse.

Table 4: Top Health Issues with the Largest Impact on the Community of Residence for the Survey Respondent/Family, 2013

	Marlborough (N=44)	Hudson (N=48)
Aging problems (Alzheimer's, arthritis, dementia, etc.)		
You/Your Family	40.9%	37.5%
Community where you live	43.2%	33.3%
Asthma		
You/Your Family	18.2%	29.2%
Community where you live	20.5%	27.1%
Cancer		
You/Your Family	40.9%	39.6%
Community where you live	25.0%	45.8%
Diabetes		
You/Your Family	40.9%	37.5%
Community where you live	36.4%	33.3%
Drugs/alcohol abuse		
You/Your Family	13.6%	16.7%
Community where you live	47.7%	54.2%
Heart disease (stroke, hypertension, etc.)		
You/Your Family	52.3%	45.8%
Community where you live	29.5%	31.2%
Infectious disease (tuberculosis, pneumonia, flu, etc.)		
You/Your Family	13.6%	14.6%
Community where you live	15.9%	18.8%
Mental health (anxiety, depression, etc.)		
You/Your Family	36.4%	45.8%
Community where you live	52.3%	54.2%
Overweight or obesity		
You/Your Family	38.6%	45.8%
Community where you live	50.0%	52.1%
Sexually transmitted infections (HIV/AIDS, Chlamydia, etc.)		
You/Your Family	2.3%	0.0%
Community where you live	9.1%	2.1%
Smoking		
You/Your Family	11.4%	25.0%
Community where you live	43.2%	31.2%
Teen Pregnancy		
You/Your Family	0.0%	0.0%
Community where you live	18.2%	12.5%
Violence (gangs, street or domestic violence)		
You/Your Family	2.3%	2.1%
Community where you live	15.9%	14.6%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

The primary issues that have the largest impact on survey respondents' community of employment are detailed in (Table 5). In Marlborough, top health concerns included mental health, overweight or obesity, heart disease, and smoking. In Hudson, top health concerns included mental health, drug and alcohol abuse, overweight or obesity, and cancer.

Table 5: Top Health Issues with the Largest Impact on the Community of Employment for the Survey Respondent, 2013

	Marlborough (N=31)	Hudson (N=61)
Mental health (anxiety, depression, etc.)	53.3%	62.3%
Overweight or obesity	53.3%	44.3%
Heart disease (stroke, hypertension, etc.)	43.3%	14.8%
Smoking	43.3%	27.9%
Aging problems (Alzheimer's, arthritis, dementia, etc.)	36.7%	14.8%
Cancer	33.3%	34.4%
Diabetes	33.3%	21.3%
Drugs/alcohol abuse	33.3%	54.1%
Infectious disease (tuberculosis, pneumonia, flu, etc.)	13.3%	19.7%
Asthma	10.0%	21.3%
Teen Pregnancy	10.0%	9.8%
Sexually transmitted infections (HIV/AIDS, Chlamydia, etc.)	6.7%	4.9%
Violence (gangs, street or domestic violence)	6.7%	11.5%

NOTE: Responses for those who specifically work in Hudson and Marlborough (may live in the communities or elsewhere)

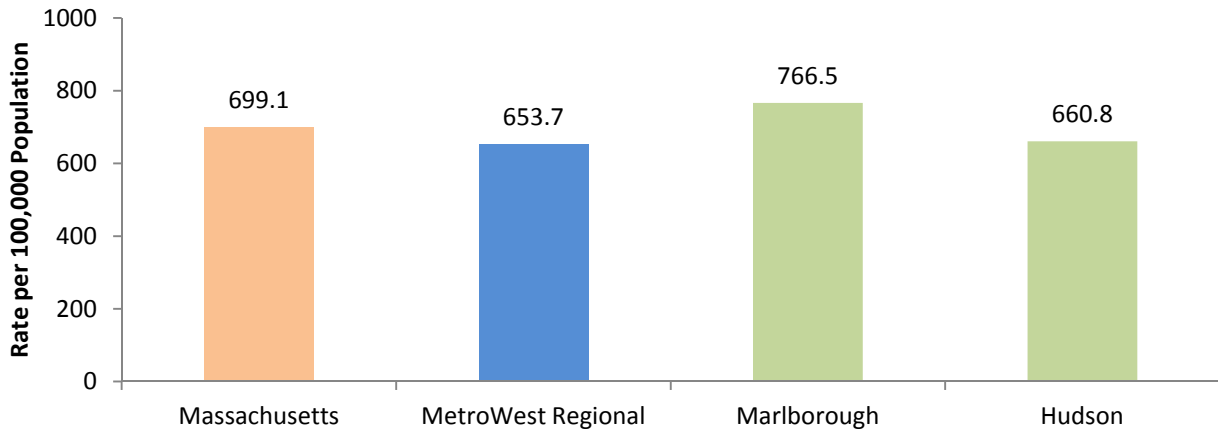
NOTE: Arranged in descending order by "Marlborough"

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

Mortality and Hospitalization

Many communities in the MetroWest region had similar or lower mortality and hospitalization rates as the state, although some communities experienced disproportionately higher rates. As illustrated in Figure 3, Marlborough (766.5 per 100,000 population) had a substantially higher age-adjusted mortality rate than Hudson (660.8 per 100,000 population), though both exceeded the averaged mortality rate for the region (653.7 per 100,000 population).

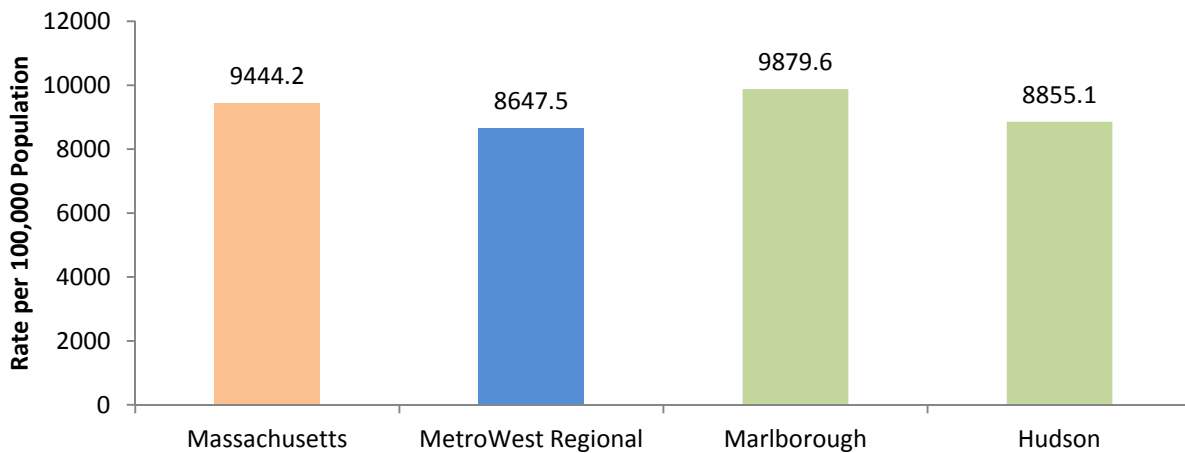
Figure 3: Age-Adjusted Mortality Rate per 100,000 Population by Massachusetts, Region, and Community, 2005-2009



DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Mortality, 2005-2009
 Note: The MetroWest Regional bar includes all communities in the service area of the MetroWest Health Foundation, which differ very slightly from the communities that are the focus of the CHA.

Figure 4 and Table 6 provide an overview of hospitalization statistics for the region. As seen in Figure 4, age-adjusted hospitalization rates for the region are overall slightly lower than what is seen statewide, although Marlborough and Hudson both have higher hospitalization rates.

Figure 4: Age-Adjusted All Hospitalization Rate per 100,000 Population by Massachusetts, Region, and Catchment Area, 2005-2009



DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Hospitalization, 2005-2009
 Note: The MetroWest Regional bar includes all communities in the service area of the MetroWest Health Foundation, which differ very slightly from the communities that are the focus of the CHA.

Table 6 on the next page examines deeper the hospitalizations for Marlborough Hospital in Fiscal Year 2011 and Fiscal Year 2012 in the primary service area of Marlborough and Hudson. Data reveal that chest pain is the number one primary diagnosis for emergency department/outpatient visits to the hospital, while urinary tract infections and open finger wounds are also report a number of admissions. For inpatient admissions, other than surgery, pneumonia and bronchitis rank high for number of primary diagnoses among inpatient admissions. Episodic mood disorders and depressive symptoms are the most common psychiatric admission diagnoses.

Table 6: Number of Marlborough Hospital Outpatient and Inpatient Admissions, by Primary Diagnosis, Fiscal Year 2011 and Fiscal Year 2012

	FY2011		2011	FY2012		2012	Grand Total
	Marlborough	Hudson	Total	Marlborough	Hudson	Total	
Outpatient							
Chest pain	218	78	296	272	93	365	661
Urinary tract infection	202	80	282	217	88	305	587
Open wound on finger	175	79	254	197	93	290	544
Lumbago/lower back pain	182	71	253	173	62	235	488
Headache	195	61	256	167	71	238	494
Acute pharyngitis	203	59	262	149	62	211	473
Head injury	158	68	226	148	66	214	440
Inpatient							
Surgery	1501	553	2054	1439	591	2030	4084
Pneumonia	94	38	132	94	32	126	258
Chronic bronchitis	55	29	84	65	13	78	162
Urinary tract infection	50	15	65	45	13	58	123
Acute renal failure	38	15	53	31	23	54	107
Septicimia	39	7	46	33	18	51	97
Cellulitis of the leg	32	5	37	29	17	46	83
Acute pancreatitis	32	19	51	27	17	44	95
Psych Inpatient							
Unspecific episodic mood disorder	35	12	47	49	10	59	106
Depressive disorder, unspecified	18	5	23	24	3	27	50
Recurrent depressive disorder - severe	19	5	24	15	8	23	47
Schizoaffective disorder, unspecified	9	1	10	12	6	18	28
Bipolar disorder, unspecified	10	3	13	12	2	14	27

DATA SOURCE: Marlborough Hospital, discharge statistics, 2013

Healthy Eating, Physical Activity, and Obesity

Focus group members generally spoke positively about their surroundings, noting greater community efforts around healthy eating and active living. For example, they discussed how many of the communities in the region have parks and recreational facilities, the improvements in school food, and the success of the Mass in Motion Initiative. Still, some concerns were discussed. Key issues identified included:

1. Affordability and accessibility of healthy foods and recreational opportunities
2. Prevalence of fast food establishments
3. Lack of time for healthy food preparation and physical activity

The Built Environment around Healthy Foods and Recreation

Table 7 illustrates limited access to healthy food and recreational parks by state and Middlesex County (the county of both Marlborough and Hudson). Limited access to recreational parks is defined as the percentage of the population that does not live within half a mile of a park. In Middlesex County, 42.0% of the population has limited access to recreational parks as compared to 51.0% statewide. Limited

access to healthy food captures the percent of the population who are low-income and do not live close to a grocery store. Middlesex County (3.0%) again had a percentage slightly lower than statewide (4.0%).

Table 7: Percent of Population with Limited Access to Healthy Food and Recreational Parks by Massachusetts and County, 2010/2012

	Limited Access to Healthy Food*	Limited Access to Recreational Parks**
Massachusetts	4.0%	51.0%
Middlesex County	3.0%	42.0%

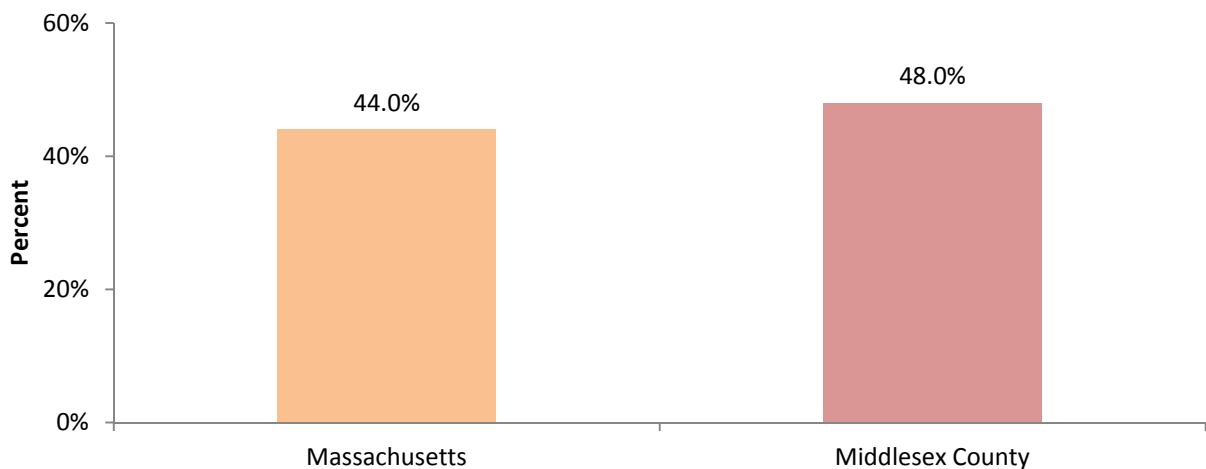
NOTE: Limited access to healthy foods captures the proportion of the population who are low income and do not live close to a grocery store. Living close to a grocery store is defined differently in rural and nonrural areas; in rural areas, it means living less than 10 miles from a grocery store whereas in nonrural areas, it means less than 1 mile. Low income is defined as having an annual family income of less than or equal to 200 percent of the federal poverty threshold for the family size.

*DATA SOURCE: U.S. Department of Agriculture (USDA), Food Environment Atlas, as cited by the County Health Rankings, 2012

**DATA SOURCE: Centers for Disease Control and Prevention, Environmental Public Health Tracking Network, as cited by the County Health Rankings, 2013

Access to healthy foods emerged as a concern among Marlborough and Hudson focus group participants, with several noting the plethora of fast food restaurants in the area. Quantitative data illustrate that more than 4 in 10 of all restaurants in Massachusetts and Middlesex County are fast food establishments (Figure 5).

Figure 5: Percent of All Restaurants that are Fast-Food Establishments by Massachusetts and County, 2010

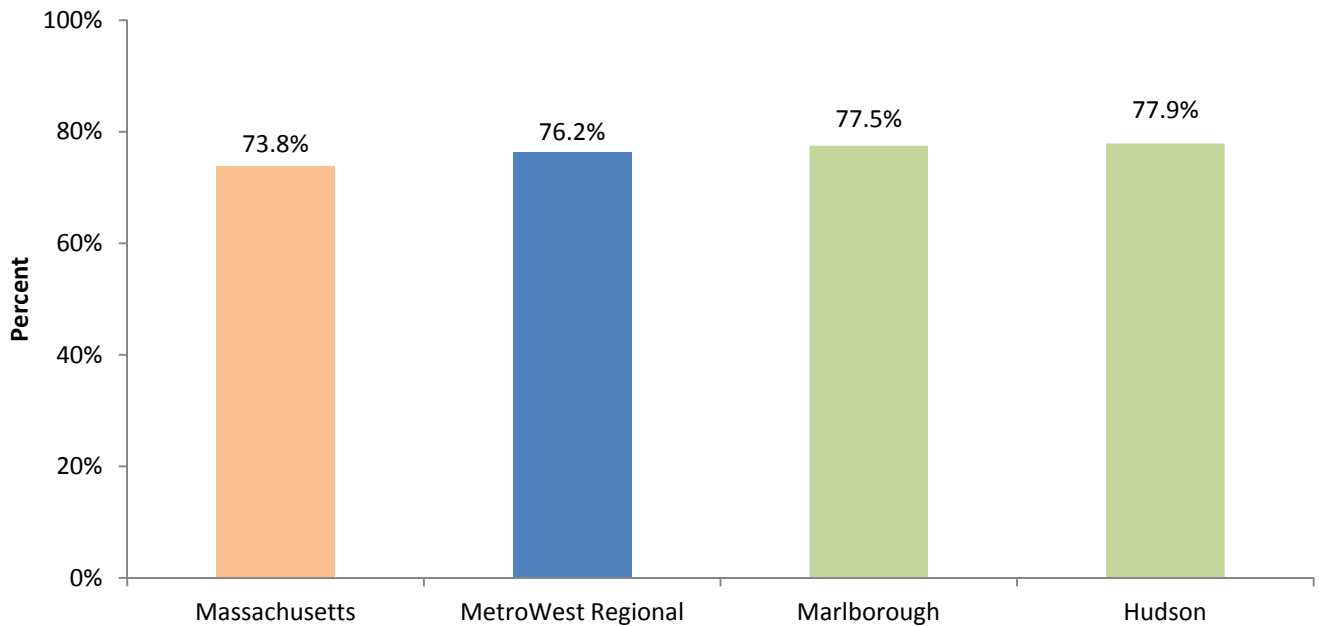


DATA SOURCE: U.S. Department of Commerce, US Census Bureau, County Business Patterns, as cited by the County Health Rankings, 2010

Healthy Eating and Physical Activity

Quantitative data from the Behavioral Risk Factor Surveillance System Survey, a national and Massachusetts telephone survey of self-reported behaviors, show that like at the state level (73.8%), the majority of adults in the region were not getting the recommended intake of fruits and vegetables in 2010 (Table 8). Inadequate fruit and vegetable consumption was highest in Hudson (77.9%) among MetroWest region communities, although both Marlborough and Marlborough (77.5%) exceeded that reported at the MetroWest regional level (76.2%).

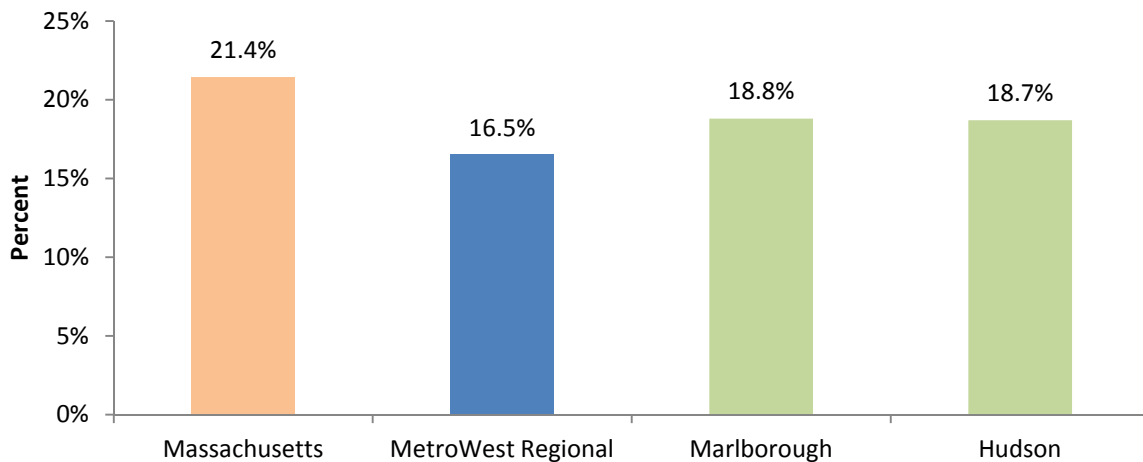
Table 8: Percent of Adults Eating Fewer than 5 Servings of Fruits and Vegetables Daily by Massachusetts, Region, and Catchment Area, 2010



DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Behavioral Risk Factor Survey Statistical Estimates, Clinical Tests and Care, 2010

Quantitative data illustrate some variability in the daily physical activity among statewide (21.4%) and region (16.5%) adults (Table 9). Adults were least likely to engage in daily physical activity in Marlborough (18.8%) and Hudson (18.7%) among all MetroWest communities.

Table 9: Percent of Adults Lacking Regular Physical Activity by Massachusetts, Region, and Community, 2010



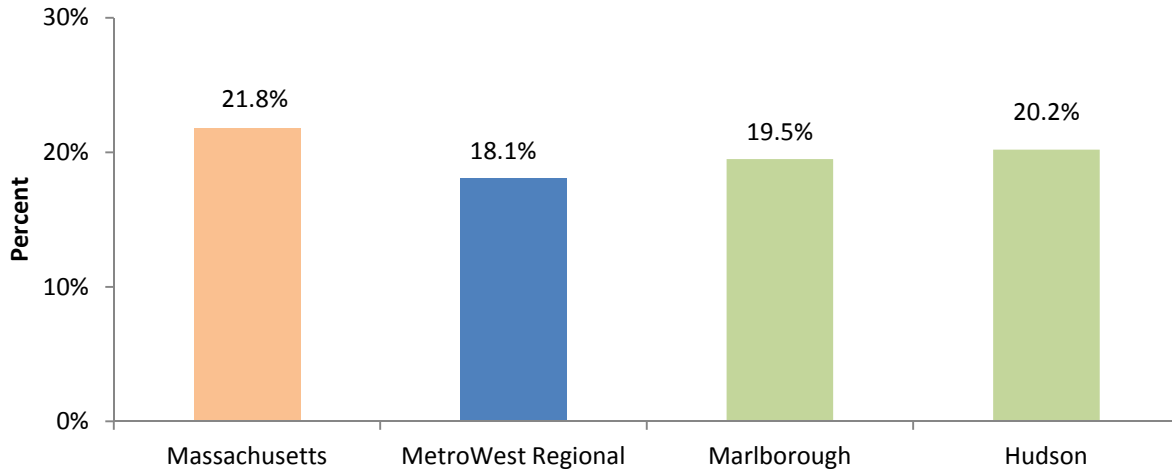
DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Behavioral Risk Factor Survey Statistical Estimates, Clinical Tests and Care, 2010

Adult Obesity

Obesity and related chronic diseases such as diabetes and heart disease were the most commonly-mentioned health concerns for the MetroWest region, including in Marlborough and Hudson. These issues were raised in nearly every focus group. According to quantitative data, the percent obese in the MetroWest region (18.1%) was several points below the statewide average (21.8%). As illustrated in

Table 10, Marlborough (19.5%) and Hudson (20.2%) had relatively high rates of obesity, which were in fact the highest percent of obese adults out of all the communities in the MetroWest region.

Table 10: Percent of Obese Adults by Massachusetts, Region, and Community, 2010



DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Behavioral Risk Factor Survey Statistical Estimates, Clinical Tests and Care, 2010

Mental Health

Overall, mental health was cited as a key concern among MetroWest CHA participants, including among Marlborough and Hudson focus group participants. Focus group members reported rising rates of anxiety and depression as well as other mental health issues among people in the region. Specific concerns mental health concerns mentioned by focus group participants included:

1. Anxiety and depression specifically
2. Limited supply of culturally sensitive/non-English speaking providers and those focusing on youth
3. Stigma of seeking services
4. Primary care providers not being able to properly screen for mental health

As seen in Table 11, residents in the MetroWest region were less likely than in the state overall to report that they had poor mental health for more than 15 days or that they felt sad, depressed, or blue during that time. Marlborough and Hudson were the communities in the region with the highest rates of both, where 7% of Marlborough and Hudson residents indicated that they had poor mental health for more than 15 days and 3.3% felt sad, depressed, and blue.

Table 11: Percent of Adults Reporting Poor Mental Health Symptoms by Massachusetts, Region, and Community, 2010

Geographic Location	Poor Mental Health More Than 15 Days	Feel Sad, Depressed, or Blue More Than 15 Days
Massachusetts	8.9%	6.4%
MetroWest Regional	6.1%	2.7%
Marlborough	7.0%	3.3%
Hudson	7.0%	3.3%

DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Behavioral Risk Factor Survey Statistical Estimates, Health Status, 2010

Substance Use and Abuse (Alcohol, Tobacco, and Illegal Drugs)

In addition to obesity, substance use was mentioned in almost every focus group in Marlborough and Hudson. Overall, focus group participants for the hospital’s service area were particularly concerned about the following:

1. Use of tobacco, marijuana, and prescription drugs among youth
2. Limited dual diagnosis services (substance use and mental health)
3. Cuts in governmental funding

Table 12 summarizes substance use and abuse behaviors by Massachusetts and the Marlborough Hospital primary service area. Aggregate data from 2007 to 2009 illustrate the proportion of Marlborough (15.9%) and Hudson (15.7%) residents engaging in binge drinking were below the statewide average of 17.7%. ‘Current smoker’ was defined as having smoked with the past 30 days. Hudson had the greatest proportion of its population reporting current smoker status followed by Marlborough (12.8% and 12.3%, respectively) though both were again below the statewide average of 15.9%.

Table 12: Substance Use and Abuse Behaviors by Massachusetts and Community, 2007-2009

Geographic Location	Engage In Binge Drinking	Current Smoker
Massachusetts	17.7%	15.9%
Marlborough	15.9%	12.3%
Hudson	15.7%	12.8%

DATA SOURCE: MetroWest Health Foundation, Community Health Profiles Report, 2012

Table 13 illustrates substance abuse admissions and discharges across the state and in the Marlborough Hospital primary service area. The admission rate to Department of Public Health (DPH) funded treatment programs was highest in Marlborough (1353.5 per 100,000 population), as compared to Hudson (902.0 per 100,000 population) though both were substantially lower than the statewide rate of 1532.4 per 100,000 population. Regarding injection drug user admissions to DPH funded treatment programs, both Marlborough and Hudson’s rates were well below the statewide rate of 621.2 per 100,000 population. A similar pattern can be seen with the alcohol and other drug related hospital discharge rate.

Table 13: Rate of Substance Abuse Admissions and Discharges per 100,000 Population by Massachusetts and Community, 2009/2011

	Admissions to DPH funded treatment programs +	Injection drug user admissions to DPH funded treatment programs +	Alcohol and other drug related hospital discharges ++
Massachusetts	1532.4	621.2	344.7
Marlborough	1353.5	301.4	204.5
Hudson	902.0	233.5	244.1

+DATA SOURCE: Massachusetts Department of Public Health, MassCHIP, Health Status Indicators Report, Substance Abuse (BSAS), 2011

++DATA SOURCE: Massachusetts Department of Public Health, MassCHIP, Health Status Indicators Report, Calendar Year Hospital Discharges (UHDDS), 2009

HEALTHCARE ACCESS AND UTILIZATION

Challenges to Accessing Health Care Services

Overall, the MetroWest region was viewed as providing high quality care in a number of different locations, including in the Marlborough-Hudson service area; however, challenges to accessing services still remained for more disadvantaged populations. Specific concerns discussed among focus group members included:

1. Cost of care, including co-pays and prescription drugs
2. Difficulty of navigating health care system, including getting health insurance (e.g., paperwork is lengthy, confusing)
3. Finding providers to take one's insurance; the limited supply of providers in general (primary care, specialists, dental providers, mental health providers)
4. Scheduling appointments during convenient times; it was noted that it takes weeks to get an appointment or there is no service during weekend or evening hours
5. Language and cultural barriers to care
6. Transportation (specifically among seniors and low-income residents)

Survey respondents noted their barriers to care. Table 14 reveals that survey respondents in Marlborough were most likely to report long lack of evening/weekend services and cost of care as the top two challenges they have experienced, while respondents in Hudson cited lack of evening or weekend services and long wait times for appointments.

Table 14: Survey Respondents' Perceived Challenges to Accessing Care by MetroWest Region and Service Area, 2013

	MetroWest Region (N=673)	Marlborough (N=44)	Hudson (N=48)
Lack of evening or weekend services	26.4%	29.5%	31.2%
Cost of care	21.1%	27.3%	18.8%
Insurance problems/lack of coverage	16.3%	25.0%	16.7%
Long wait for an appointment	27.5%	25.0%	25.0%
Office not accepting new patients	19.2%	25.0%	16.7%
I have never experienced any difficulty getting care	34.0%	22.7%	25.0%
No provider available near me	6.4%	13.6%	10.4%
Unfriendly provider/office staff	9.7%	11.4%	16.7%
Lack of transportation	5.1%	9.1%	12.5%
Afraid to get care	4.2%	6.8%	0.0%
Have no regular source of health care	2.2%	4.5%	2.1%
Felt discriminated against	2.1%	4.5%	0.0%
Don't know what types of services are available	5.3%	4.5%	8.3%
Health information is not kept confidential	2.4%	4.5%	0.0%
Language/communication problems with health provider	1.0%	0.0%	2.1%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

NOTE: Arranged in descending order by "Marlborough"

Table 15 shows data across the state and region of residents who do not have a personal doctor (10.6% for state, 8.8% for region) and who have not had a check-up in the past year (23.3% for state, 26.0% for region). Overall, Marlborough and Hudson residents were less likely than those statewide to say they did not have a personal doctor. Marlborough and Hudson residents were slightly more likely than those in the state to not have had a check-up in the past year.

Table 15: Engagement in Health Care Prevention Services by Massachusetts, Region, and Community, 2010

Geographic Location	Without a Personal Doctor	No Check Up in Past Year
Massachusetts	10.6%	23.3%
MetroWest Regional	8.8%	26.0%
Marlborough	10.4%	26.7%
Hudson	8.9%	25.8%

DATA SOURCE: MetroWest Health Foundation, MetroWest Health Data Search, Behavioral Risk Factor Survey Statistical Estimates, Clinical Tests and Care, 2010

As detailed in Table 16, CHA survey respondents were asked to comment on their insurance status and provider, if applicable. The majority of respondents in the MetroWest region (73.0%), Marlborough (63.6%), and Hudson (79.2%) were privately insured through their employer, their spouse’s employer, or their parents. Approximately 2% of respondents from Marlborough and Hudson noted that they were uninsured.

Table 16: CHA Survey Respondents' Health Insurance Status, 2013

	MetroWest Region (N=673)	Marlborough (N=44)	Hudson (N=48)
Yes, private insurance (through employer/spouse's employer/parents)	73.0%	63.6%	79.2%
Yes, private insurance (buy on your own)	6.2%	4.5%	2.1%
Yes, Health Safety Net	0.7%	4.5%	0.0%
Yes, Commonwealth Care	1.9%	2.3%	2.1%
Yes, MassHealth/Medicaid	3.0%	2.3%	4.2%
Yes, Medicare	10.0%	2.3%	6.2%
No insurance, uninsured	0.6%	2.3%	2.1%
Yes, Veteran's Administration or TriCare	0.6%	0.0%	0.0%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

NOTE: Arranged in descending order by “Marlborough”

Survey respondents were also asked to identify who their main medical care was provided by. As seen in Table 17, the overwhelming majority of respondents in the MetroWest region (92.9%), Marlborough (90.9%), and Hudson (90.2%) received their main medical care in a private doctor’s office or group practice.

Table 17: CHA Survey Respondents' Main Medical Providers, 2013

	MetroWest Region (N=673)	Marlborough (N=44)	Hudson (N=48)
Private doctor's office or group practice	92.9%	90.9%	90.2%
Walk-in medical clinic	0.7%	3.0%	0.0%
Hospital-based clinic	1.7%	3.0%	0.0%
Free-medical program	0.5%	3.0%	0.0%
Community Health Center	2.1%	0.0%	7.3%
At a pharmacy	0.2%	0.0%	0.0%
Emergency Room	0.5%	0.0%	0.0%
Veteran's Administration facility	0.3%	0.0%	0.0%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

NOTE: Arranged in descending order by “Marlborough”

To further grasp the portrait of access to care in the primary service area, data around health care providers was included in Table 18. Data at the county level indicate that Middlesex County had a lower population to provider ratio for mental health and dental providers than the state overall.

Table 18: Ratio of Population to Mental Health and Dental Providers by Massachusetts and County

	Mental Health Providers	Dentists*
Massachusetts	970:1	1,222:1
Middlesex County	558:1	1,187:1

DATA SOURCE: US Department of Health and Human Services, HRSA Area Resource File, as cited by County Health Rankings, 2011-2012; For Dentists: County Health Rankings, 2013

Health Information Sources

When MetroWest community health assessment survey respondents were asked the sources from which they receive the majority of their health information, nearly half of respondents indicated that their main source was a doctor, nurse, or other health provider (Table 19), followed by the Internet/websites. This pattern was consistent in both Marlborough and Hudson.

Table 19: CHA Survey Respondents' Sources for the Majority of Their Health Information by MetroWest Region and Service Area, 2013

	MetroWest Region (N=673)	Marlborough (N=44)	Hudson (N=48)
Doctor, nurse, or other health provider	47.2%	39.4%	46.3%
Website	31.4%	39.4%	39.0%
Magazine	3.3%	6.1%	2.4%
Family members	1.9%	3.0%	0.0%
Friends	1.2%	3.0%	0.0%
Employer	2.3%	3.0%	0.0%
Library	0.7%	3.0%	0.0%
Local newspaper	1.0%	3.0%	2.4%
Pharmacy	0.9%	0.0%	2.4%
Neighbors	0.2%	0.0%	0.0%
School	0.3%	0.0%	0.0%
Religious or spiritual advisor	0.2%	0.0%	0.0%
Television	0.9%	0.0%	2.4%
Radio	0.2%	0.0%	0.0%
Social Media	1.4%	0.0%	0.0%

NOTE: Arranged in descending order by "Marlborough"

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

VISION FOR THE FUTURE

When thinking about the future, MetroWest community health assessment survey respondents saw key areas for action. Survey respondents were asked to identify the areas they considered to be high, medium, and low priorities to be addressed in the future. Marlborough respondents were most likely to identify as “high priority” making fresh fruits/vegetables more accessible and increasing services for elderly to stay in their homes (Table 20). In Hudson, respondents identified making fresh fruits and vegetables more affordable and available and offering more programs and services focusing on physical activity, nutrition, or addressing obesity as their top priorities.

Table 20: Percent Survey Respondents Noting Areas as “High Priority” for the Future by MetroWest Region and Service Area, 2013

	MetroWest Region (N=673)	Marlborough (N=44)	Hudson (N=48)
Make fresh fruits and vegetable more affordable and available	69.5%	71.0%	70.0%
Increase the number of services that help seniors to remain in their homes longer	62.5%	66.7%	48.8%
Offer more programs/services focusing on physical activity, nutrition, or addressing obesity	60.3%	64.5%	61.5%
Provide more transportation to area medical/health services	42.7%	60.0%	50.0%
Increase health/medical services to low-income individuals	47.8%	56.7%	42.5%
Provide more mental health or counseling services for adults	49.8%	56.7%	57.9%
Provide more mental health or counseling services for youth	54.2%	55.2%	60.5%
Expand health/medical services to youth	43.4%	53.3%	47.4%
Expand health/medical services to seniors (65+)	53.2%	53.3%	59.0%
Provide more reproductive or sexual health services for youth	39.9%	51.7%	39.5%
Improve walkability (e.g., sidewalks, bike lanes, street lights)	56.6%	45.2%	51.3%
Provide more alcohol or drug prevention services	40.1%	43.3%	42.1%
Provide more alcohol or drug treatment services	37.4%	43.3%	36.8%
Improve air quality	36.0%	30.0%	34.2%
Address environmental hazards	47.6%	30.0%	43.2%
Improve water quality	35.9%	26.7%	48.7%
Increase the number of health providers/staff that speak other languages	18.2%	23.3%	13.2%
Increase the number of dental providers	20.2%	20.0%	13.5%

DATA SOURCE: MetroWest Region Community Health Assessment Survey, 2013

NOTE: Arranged in descending order by “Marlborough”