





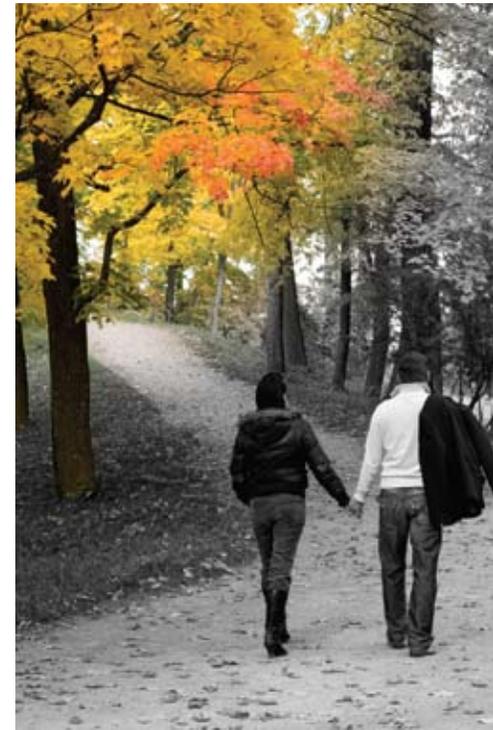
# Community Assets

Community assets are resources that provide a healthier environment for Massachusetts residents and can have a great impact on the health and quality of community life.<sup>1</sup>

Community assets can range from physicians per capita to access to public recreation programs. Several studies suggest that individuals' health can be influenced by where they live, work, or send their children to school.<sup>2</sup> Communities vary by the health-related assets that are available to their residents. Communities also vary widely when it comes to the disproportionate burden of disease, including diabetes, heart disease, asthma and other illnesses.

Taking stock of the assets in local communities can help residents mobilize around key issues, enhance these resources, improve the health of their residents and reduce health inequities across the Commonwealth.<sup>3</sup>

This chapter provides a snapshot of measures related to community assets. The two main sections within this chapter are Health Care Infrastructure, with an emphasis on the distribution of services, and Community Infrastructure, with an emphasis on assets that encourage healthy eating and active living. The data are presented by the six geographical regions within the Executive Office of Health and Human Services (EOHHS). Measures include health care capacity, distribution ratio of health care providers, farmers' markets, comprehensive master planning, public recreation programs, and availability of healthy foods options.



**Community assets are resources that can have a great impact on the health and quality of community life and provide a healthier environment for Massachusetts residents.**

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## What Does Community Mean?

Community may be defined as a grouping of people with diverse characteristics who are linked by physical or social environments, share common perspectives, and engage in joint action in geographical locations or settings.<sup>4</sup>

Physical environments in a community may include parks, open spaces, libraries, health centers, and businesses. Social environments in a community may include civic, social, neighborhood, church and other groups, where people participate and interact.<sup>5</sup>

A healthy community is one that is constantly creating and improving its physical and social environments. This enables its residents to encourage and support one another in living healthy and active lifestyles.<sup>5</sup>

Identifying and increasing access to community assets can transform communities and aid in improving the overall health of their residents.<sup>6,7,8</sup>

**One approach for creating sustainable and healthy environments is to implement policies, systems and environmental changes at the local or regional level.**

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## Building a Supportive Environment

Community assets provide people with opportunities to lead healthy lives by allowing them to make healthy choices more easily.

One approach for creating sustainable and healthy environments is to implement policies, systems and environmental changes at the local or regional level.

- **Policies** are laws, regulations, rules, protocols, and procedures designed to guide or influence behavior.
- **Systems change** occurs when one or several elements in a system substantially change, altering both their relationship to one another and the overall structure of the system itself.
- **Environmental changes** are changes to the economic, social, or physical environments.

These changes provide opportunities, support, and cues to guide people in making healthier behavior choices.<sup>9</sup>

Examples of policies, systems, and environmental changes include laws and regulations that restrict smoking in public buildings, implementation of the Chronic Care Model in health care settings, worksites that provide time off during work hours for physical activity, school wellness policies that include healthy food options and opportunities for physical activity, incorporating walking paths and recreation areas into new community development designs, and making healthy low-fat food choices available in municipal and school cafeterias.<sup>10</sup>

The economic benefits to the community are also a driving force behind strengthening community assets. Evidence shows that people want to live

in places where they are able to be active and healthy. A 1999 study by the Urban Land Institute of four new pedestrian-friendly communities determined that homebuyers were willing to pay a \$20,000 premium for homes in these areas compared to similar houses in surrounding areas that lacked pedestrian-friendly amenities.<sup>11</sup> Another study found that utilization of safety precautions in developing roads and thruways reduced vehicular traffic on residential streets by several hundred cars per day and increased home values by an average of 18%.<sup>12</sup>

Healthier communities can have a positive effect on physical activity, nutrition, and various chronic conditions.<sup>13</sup> Community assets can not only directly add value and appeal to current and prospective residents, but they can also indirectly lower costs associated with the economic burden of disease.

The way we design our communities can have a direct impact on our overall wellbeing.<sup>14</sup> In order to better understand community assets, one must look at the design of the community itself, from ensuring access to health care resources to implementing land use policies.

Massachusetts was recently awarded a federal Healthy Communities Grant, which supports eliminating socio-economic and racial/ethnic health disparities as an integral part of its chronic disease prevention and health promotion efforts. (For more information on chronic diseases, please refer to Chapter 7.)

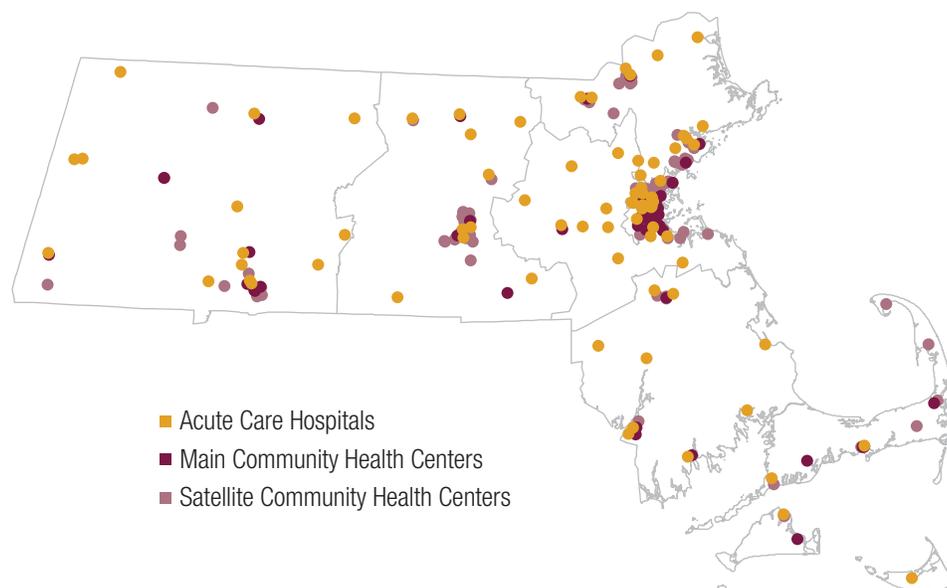
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### Health Care Infrastructure: Distribution of Resources

A vital community asset and a large component of the design of a community is access to high-quality health care services. Many individuals in Massachusetts do not have timely and equitable access to health care services. Among other factors, this may be due to the geographic location

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Figure 2.1 Acute Care Hospitals and Community Health Centers



Source: MDPH Office of Emergency Services, July 2009. Massachusetts League of Community Health Centers, MassGIS, April 2006.

and distribution of health care facilities (Figure 2.1) and their capacity to serve their surrounding populations (Figure 2.2).

The availability of and physical access to hospitals and community health centers are integral community assets. However, delivering high quality health care services also depends on having enough primary care providers and other qualified health care professionals to serve the population.

Good primary care is associated not only with improved self-rated overall health and mental health of the population, but also with reductions in disparities between more and less disadvantaged communities in overall health.<sup>15</sup> Primary care helps to reduce the adverse impact of income inequality on population health, as measured by life expectancy, age-adjusted mortality, and leading causes of death.<sup>16</sup>

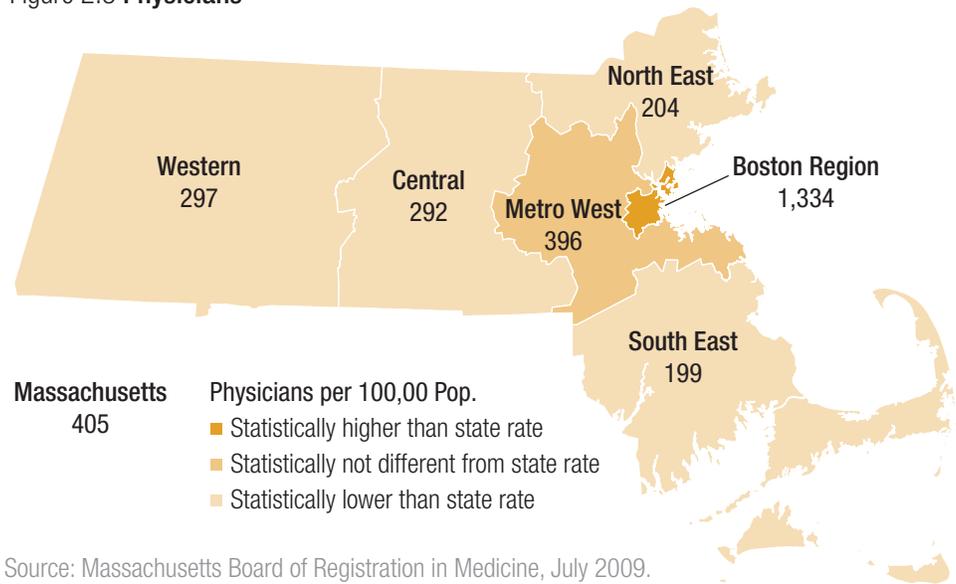
From a regional perspective, health care as a community asset is disproportionately represented in Massachusetts. While the Boston region has the highest number of acute care hospitals, community health centers,

Figure 2.2 Acute Care Hospital Beds



Sources: MDPH Division of Health Care Quality, 2008; US Census 2007 population estimates for MA. <sup>\*</sup>Statistically higher than state rate (p < 0.05). <sup>°</sup>Statistically lower than state rate (p < 0.05).

Figure 2.3 Physicians



Source: Massachusetts Board of Registration in Medicine, July 2009.

and overall physicians (including primary and specialty care) per capita, it actually has a lower number of nurses per capita (including registered and licensed practical nurses) compared to the state as a whole.

The North and South East regions have the lowest number of acute hospital beds and number of physicians per capita. The South East region has no trauma center, and ranks lower than the state average for the number of community health centers and dentists per capita (Figures 2.3, 2.4 and 2.5).

Figure 2.4 Primary Care Physicians



Source: Massachusetts Board of Registration in Medicine, July 2009.

\*Statistically higher than state rate ( $p \leq 0.05$ ). <sup>◊</sup>Statistically lower than state rate ( $p \leq 0.05$ ).

Figure 2.5 Health Care Infrastructure by Region

	Western	Central	North East	Metro West	South East	Boston Region	MA
<b>Acute Care Hospitals and Community Health Centers (CHC) (Number per 100,000 population)</b>							
Acute Hospitals	1.7	1.2	1.2	1.0	1.0	2.0	1.3
with ER	1.5	1.1	1.1	1.0	1.0	1.4	1.1
Trauma Centers	0.2	0.1	0.4	0.1	<sup>◊</sup> 0.0	0.7	0.2
CHC	2.3	2.9	3.0	<sup>◊</sup> 1.7	<sup>◊</sup> 1.6	*7.3	2.8
<b>Medical Providers Licensed in Massachusetts (Number per 100,000 population)</b>							
Dentists	<sup>◊</sup> 60.1	<sup>◊</sup> 52.8	79.2	*124.9	<sup>◊</sup> 62.4	*120.1	85.5
Nurses	1,684.6	*1,888.9	1,739.8	*1,760.7	*1,991.8	<sup>◊</sup> 1,003.4	1,718.7
RN	<sup>◊</sup> 1,335.4	*1,536.3	1,416.6	*1,573.5	*1,598.6	<sup>◊</sup> 873.6	1,429.1
LNP	*349.2	*352.6	*323.2	<sup>◊</sup> 187.2	*393.2	<sup>◊</sup> 129.8	289.5
Physicians	<sup>◊</sup> 296.7	<sup>◊</sup> 292.4	<sup>◊</sup> 204.0	395.5	<sup>◊</sup> 199.3	*1,334.4	405.3
Primary Care	<sup>◊</sup> 134.0	<sup>◊</sup> 139.9	<sup>◊</sup> 100.7	156.0	<sup>◊</sup> 85.5	*481.1	165.2
General Practice	2.6	<sup>◊</sup> 0.8	1.7	2.4	2.6	3.4	2.2
Family Medicine	19.4	*31.3	24.0	<sup>◊</sup> 14.4	<sup>◊</sup> 17.3	22.9	20.7
Pediatrics	<sup>◊</sup> 27.3	<sup>◊</sup> 24.3	<sup>◊</sup> 20.0	33.9	<sup>◊</sup> 15.8	*109.3	34.5
Internal Medicine	<sup>◊</sup> 73.3	<sup>◊</sup> 73.2	<sup>◊</sup> 45.4	90.6	<sup>◊</sup> 42.0	*311.9	94.1
OB/GYN	11.5	<sup>◊</sup> 10.4	<sup>◊</sup> 9.5	14.7	<sup>◊</sup> 7.8	*33.6	13.6
Other Specialties	<sup>◊</sup> 162.7	<sup>◊</sup> 152.4	<sup>◊</sup> 103.4	239.4	<sup>◊</sup> 113.8	*853.3	240.1

Sources: MDPH Office of Emergency Services, July 2009; Massachusetts League of Community Health Centers, MassGIS, April 2006; MA Division of Health Professions Licensure, July 2009; Massachusetts Board of Registration in Medicine, July 2009.

\*Statistically higher than state rate ( $p \leq 0.05$ ). <sup>◊</sup>Statistically lower than state rate ( $p \leq 0.05$ ).

Implementation of Health Care Reform has identified and potentially exacerbated a clear imbalance of primary care access across the state, with long wait times and closed practices.<sup>17</sup>

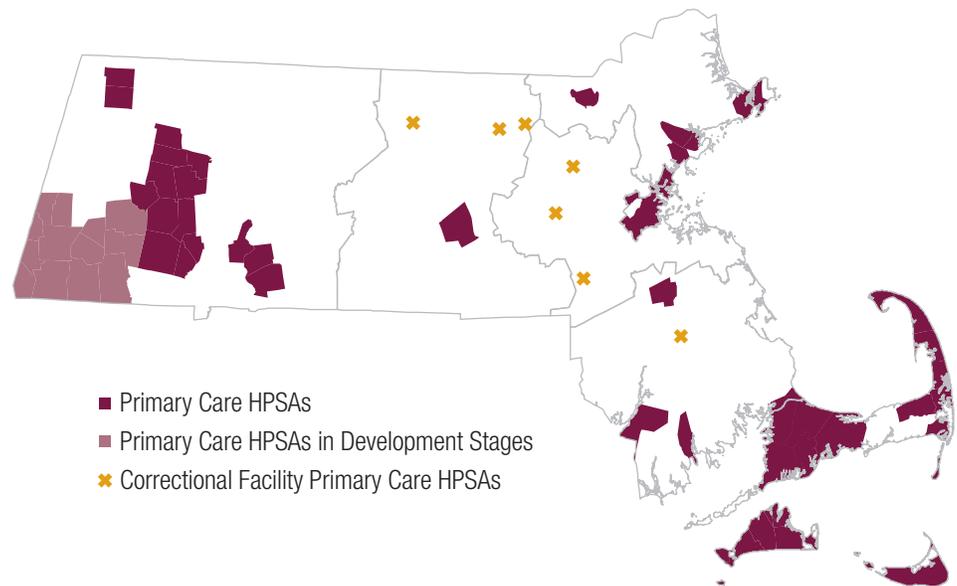
Regional disparities in health care access and infrastructure are further highlighted by the federal designation of Health Professional Shortage Areas (HPSAs).

To develop a HPSA application/designation, the MDPH Primary Care Office evaluates cities, towns, and census tracts in accordance with Health Resources and Services Administration (HRSA) guidelines to assess the availability of primary, dental and mental health care professionals.

HPSAs are utilized by Massachusetts communities and health care facilities to establish a need for additional health care professionals. This evaluation is based on criteria such as the number of primary care providers, poverty, infant mortality/low birth weight, fluoridation, youth and elderly population percentages, substance and alcohol abuse prevalence, and distance/travel time to nearest source of care. Each HPSA is given a score indicating the degree of health professional shortage. The higher the score, the greater the shortage. HPSA designations are updated every three to four years.

There is now a heightened significance to a HPSA designation, since a community or health care facility can potentially benefit from federal programs designed to support access to primary care in underserved areas.

Figure 2.6 Primary Care Health Professional Shortage Areas (HPSA)



A primary care designation considers the availability of physicians specializing in geriatrics, family medicine, general practice, general internal medicine, obstetrics-gynecology, and pediatrics.

Source: MDPH Division of Primary Care and Health Access, September 2009.

(See Figure 2.6 for current and emerging primary care shortage areas in Massachusetts.)

To help place health care professionals in areas where shortages exist, the Primary Care Office coordinates three programs: National Health Service Corps (NHSC), Massachusetts State Loan Repayment Program (MSLRP), and the J-1 Visa Waiver Program.

The J-1 Visa Waiver program helps place physicians with a variety of specialties in HPSAs. The MSLRP and National Health Service Corps supports a wide range of primary care providers in HPSAs. These programs are important recruitment and retention tools for communities and health facilities located in shortage areas.

Strengthening health care resources improves the health of local residents, and, since health care is one of the nation's largest industries and is often one of the largest employers, health care settings can also support the local economy by employing community residents. Health care facilities can also advocate for healthier communities<sup>18</sup> by supporting locally grown food, enhancing access to healthier food choices and physical activity, establishing farmers' markets, and supporting employee wellness.

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### Community Infrastructures: Supporting Healthy Eating and Active Living

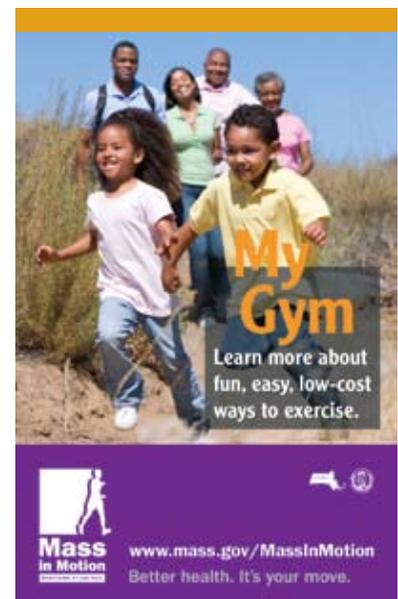
In addition to equitable healthcare,<sup>1</sup> community infrastructure offers accessible resources that contribute to a healthy environment that better enables individuals to lead healthy and active lives. Health enhancing community infrastructure is achieved through advocacy, policies, systems change and civic and environmental approaches.

The physical environment of a community greatly impacts the way we live, work and play, and thus also influences health. Comprehensive master plans are guidelines that communities can use to provide a clear vision of the community's developing physical environment.

A comprehensive master plan allows communities to address health and safety concerns, recommend zoning strategies, and develop land use policies that benefit the health of its residents. Such measures might include building sidewalks and crosswalks and reducing the speed of traffic to enhance walking and pedestrian safety.

In addition to master planning, communities can look to mixed-use design to encourage active living and healthy eating. Mixed-use refers to the deliberate mixing of housing, civic uses, and commercial uses, including retail establishments, restaurants, and offices.<sup>19</sup> Some of the benefits of mixed-use development can include revitalization of the community, more housing opportunities, promotion of pedestrian and bicycle traffic,

In 2008, Massachusetts instituted an additional loan forgiveness program for primary care physicians and nurse practitioners practicing primary care in an underserved area for at least two years.



"Mass in Motion," launched in January 2009, is a multifaceted wellness campaign. It recently awarded 10 Municipal Wellness and Leadership Grants, totaling more than \$1 million, to help communities across Massachusetts promote healthy eating and active living at the local level. (For more information on "Mass in Motion," see Chapter 7.)

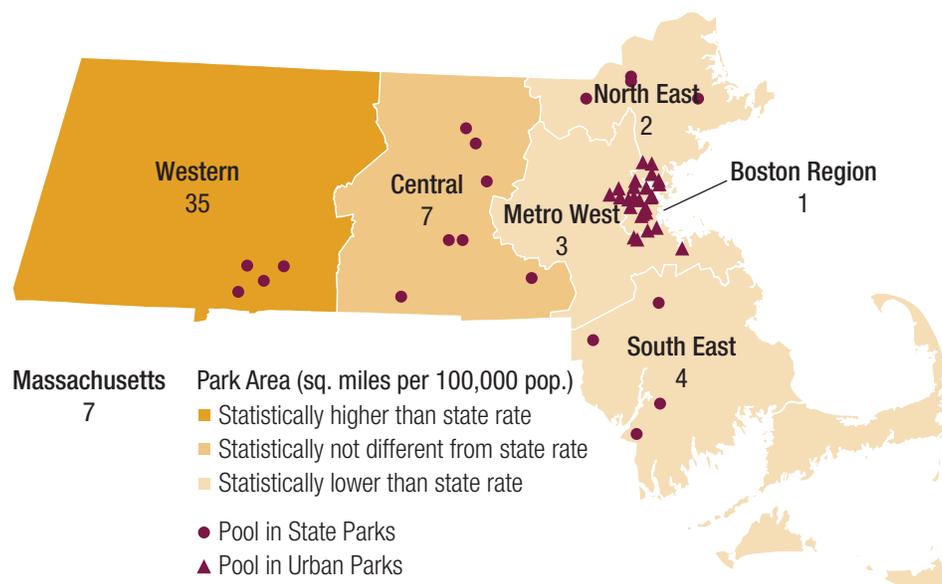
**Overall, 85% of communities who responded to the 2007 Survey of Policies and Programs Related to Health for Cities and Towns in Massachusetts provide some form of public recreation programs to their residents.**

increased opportunity for socialization, added sense of community, and encouragement of economic investment.<sup>19</sup>

Open space, including parks, playgrounds, courts, skating rinks and swimming pools provide places for people to engage in exercise and active play. Strong evidence has shown that supporting the creation and/or the enhancement of these places is an effective intervention for increasing overall activity levels.<sup>20</sup> Recreation programming can also serve as a vehicle for community cohesion.

Unfortunately, places for people to be physically active are not evenly distributed among all communities. In most cases, low-income individuals and people of color are less likely to live in communities with parks and public recreation programs.<sup>21</sup> Enhancing or creating equitable access to public recreation programs can help decrease these disparities.

Figure 2.7 Area of State and Urban Parks and Dept. of Conservation & Recreation Pools



Source: MassGIS, open-space and infrastructure layers, July 2009.

The western region of the state has a larger area of parks per capita. Yet, among those who responded to the 2007 Survey of Policies and Programs Related to Health for Cities and Towns in Massachusetts, a lower percentage of cities and towns in the western region said they have master plans, address walkability and sidewalks, permit mixed-used development, or have public recreation programs (Figure 2.8).

To further promote active living environments, communities can establish agreements that allow the use of public schools and other facilities for public recreational use during non-school hours and work together with schools to promote Safe Routes to School programs that ensure children can safely walk or ride their bicycles to school.<sup>22</sup> Understanding the safety

of the community is essential to the process of enhancing or creating access to places like parks and recreation facilities. Both perceived and real safety issues hinder people’s ability to be active. People are more reluctant to jog, walk, or play if they perceive their neighborhood or their recreation area as unsafe, which in turn can lead to physical inactivity and sedentary behavior.

In addition to providing safe outdoor physical space for active living, communities can institute policies in schools and worksites where children and adults spend much of their time. Schools can promote healthy physical activities and incorporate them throughout the day, including before and after school. These activities can ensure that children get the 30-60 minutes of physical activity that they need daily. They also help to limit their use of television, video games and computers for non-educational purposes, which are activities that contribute to a sedentary lifestyle.<sup>23</sup>

Across Massachusetts, 95.7% of secondary schools required physical education in any of grades six through 12, and 83.3% offered intramural activities or physical activity clubs in 2008.<sup>24</sup>

Workplaces and employers can support active living by supporting physical activities (e.g., walking paths, safe bicycle storage, showers, and gyms) or subsidizing memberships to offsite fitness clubs either directly or through



**Occupational Health:**

Though employers are required to provide protection from on-the-job hazards for employees, wellness programs offer an opportunity to focus on preserving the health and wellbeing of workers as well. A comprehensive worksite wellness program not only protects employees from on-the-job injuries, but may increase employee attendance, productivity, overall health and company profitability. (See Chapter 9 for more information on Occupational Health.)

Figure 2.8 **Healthy Eating and Active Living Community Assets**

	Western	Central	North East	Metro West	South East	Boston Region	MA
<b>Municipal Infrastructure</b>							
<b>Communities:</b>							
With Master Plans	62%	79%	90%	94%	86%	25%	79%
Address Walkability	27%	42%	54%	76%	38%	25%	43%
Address Sidewalks	27%	45%	54%	76%	38%	25%	44%
Permit Mixed-Use Development	68%	78%	80%	88%	84%	100%	79%
Recreation Program	73%	76%	91%	100%	88%	100%	85%
<b>Communities That Have a Policy On:</b>							
Lighting on sidewalks	28%	33%	20%	39%	43%	100%	34%
Healthy Food Choices	71%	80%	83%	67%	No data	0%	72%
Menu Labeling	5%	4%	6%	4%	4%	0%	4%
<b>Worksite Infrastructure</b>							
<b>Worksites That Have:</b>							
Subsidized Exercise Facilities' Cost	49%	52%	53%	47%	39%	52%	48%
On-site Exercise Facilities	10%	5%	7%	15%	9%	10%	10%
Policies on Healthy Food Choices	19%	25%	25%	19%	19%	20%	21%
Access to Healthy Food Choices	35%	35%	42%	38%	44%	49%	41%
Nutrition Information Available	14%	8%	12%	9%	10%	9%	10%

Sources: MDPH Survey of Policies and Programs Related to Health for Cities and Towns in Massachusetts, 2007; MDPH Worksite Health Improvement Survey, 2008.



New state-wide menu labeling regulations requiring fast food restaurants to post caloric content, requiring state agencies to follow nutritional guidelines for procuring and preparing foods, and local bans on the use of cooking with *trans* fats are some of the ways Massachusetts is promoting healthy eating.

a health plan.<sup>23</sup> While only 10% of Massachusetts worksites reported having an on-site exercise facility for employees, almost half (48%) subsidize memberships to offsite physical activity facilities (Figure 2.8).

Community assets that support healthy eating begin with easy access to fresh and affordable food across all community venues. At the municipal level, having a healthy food choice policy for municipally-owned buildings is a common strategy implemented by Massachusetts cities and towns (Figure 2.8).

Appropriate strategies for worksites include providing access to healthier foods at on-site cafeterias, in vending machines, and at workplace meetings or events, and providing point of purchase nutritional information for all foods sold.

Twenty-one percent of Massachusetts businesses reported having written policies on healthy food choices. However, more than 40% of worksites reported actually offering employees access to fresh fruit and vegetables, 100% fruit juice, low-salt foods, fresh salads with low-fat dressings, 1% or skim milk, or fat-free or low-fat yogurt (Figure 2.8).

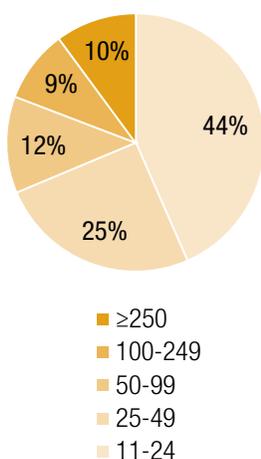
The percentage of businesses reporting access to healthy foods and policies to ensure healthy food choices was similar across regions. However, it varied by business size. Businesses with fewer than 25 employees had the highest percentage, reporting that they offer point of purchase nutrition information in cafeterias. This group represents 44% of all MA businesses (Figure 2.9). In addition, most businesses provide employees with access to a refrigerator, microwave, or both, allowing for employees to prepare healthy foods on site.

School systems are educating students about healthy eating behaviors, and creating policies to reduce access to junk food and unhealthy snacks.<sup>24</sup> Sixty-one percent of secondary schools in Massachusetts collect suggestions from students, families, and school staff on nutritious food preferences and approaches to encourage healthy eating. More than half (53.5%) of Massachusetts secondary schools provide information to students or families on the nutrition and caloric content of food available and 12.2% price nutritious food and beverages at a lower cost while increasing the price of less nutritious items.<sup>24</sup>

Unfortunately, disparities in access to affordable healthy foods exist.<sup>21</sup> Some communities address this by implementing policies that support healthy food choices in city- or town-owned facilities, establishing programs and incentives for grocery stores to locate in underserved areas, encouraging smaller stores to carry affordable nutritious options, and establishing local farmers' markets. Farmers' markets are a great resource for purchasing healthy, affordable, and locally-grown foods.

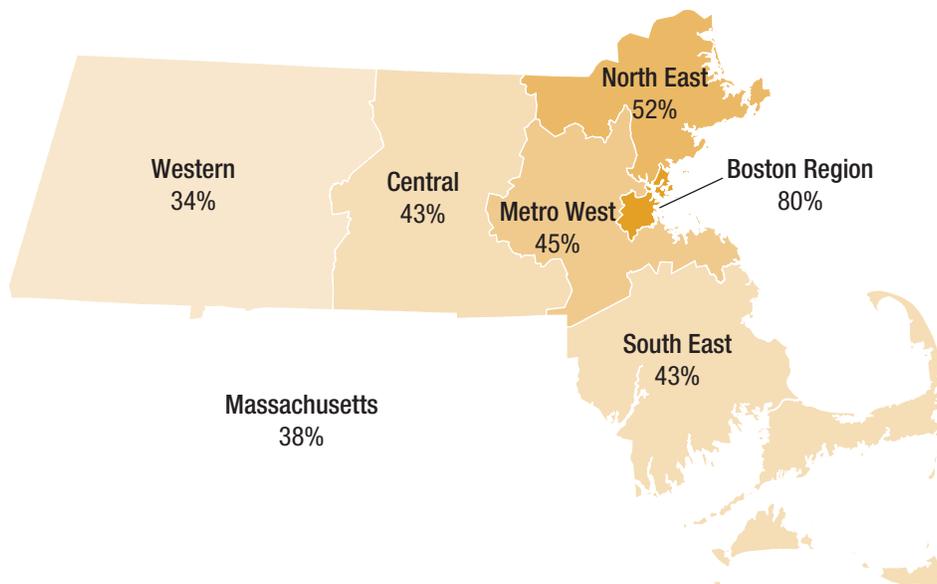
Though large areas of the western region are rural, surprisingly, this region of the state has a lower percentage of cities and towns that offer farmers'

Figure 2.9 MA Businesses by Number of Employees



Source: MDPH Worksite Health Improvement Survey, 2008.

Figure 2.10 Percent of Communities with Farmers' Markets



Source: Massachusetts Department of Agricultural Resources, August 2009.

markets compared to the state as a whole (34% of cities in the western region vs. 38% of cities in the state) (Figure 2.10).

## Conclusion

Community assets can play a significant role in the health and well-being of Massachusetts residents. Access varies from region to region.

Historically, health care prevention and community planning have been thought of as separate domains operating independently. In actuality, they are synergistic.<sup>18</sup> Both the infrastructure of the health care system and the assets of a community play important roles in ensuring health. Access to health care resources, access to healthy foods, and active living environments all contribute to the health of residents.

By implementing policies, systems, and environmental changes at the state and local level, we can strengthen the communities where people live, work and play; enhance opportunities for underserved communities; and strengthen the infrastructure of the health care system; all of which can lead to healthier communities and healthier individuals.



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**R**esources necessary for a healthy life include families, communities, a range of services – including health services – and all levels of our government – federal, state and local. We have come to take some of these resources for granted – clean water flows from our taps, our food is free of microbes and other contaminants, buildings are ventilated and meet safety standards. These are universal assets. We expect them and become alarmed if deprived of them, holding our government accountable for such failures. But many assets are neither universal nor equally distributed among communities, such as the opportunity for physical exercise at home, work and school, or ready access to healthy foods like fruits and vegetables that are nutrient dense, as opposed to sugar-sweetened drinks that are energy-dense. Access to appropriate, timely and respectful medical care is key to health – and not yet universal. To be truly available, healthy choices must be affordable as well.

This chapter offers a welcome, practical approach to what may seem the difficult task of defining a healthy community and how to achieve it. A first step is cataloging assets and their distribution – and asking “why?” Why shouldn’t all farmers’ markets accept WIC coupons? What helps promote workplace support for bicycle storage, etc.? How can we address shortages of primary care doctors in our communities?

The question is how to make these changes. A century ago, government used prerogatives such as regulation, taxation, legislation and policy intervention to help achieve better housing, safe water and uncontaminated food. Perhaps, these will be useful tools again to help us solve the problems we face in the 21st century.



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**W**e get or lose our health in the community we live, work or play in, but we, as a society, tend to spend all our time and resources talking about the medical/health care system as our source of health. We treat people in hospitals and clinics, then send them back into the community that often “caused” their problem in the first place. It is no wonder that the US continues to have one of the poorest health status rates of industrialized nations!

Access to medical care is important, but for people to be healthy, they need access to healthy environments, healthy neighborhoods, healthy homes, etc. We are a society that fixes things. We train professionals, especially in medical and human services, to identify (diagnose) what is wrong and fix it. Let’s make sure we widen our focus from treating individuals to treating the whole community that determines our health. Both medicine *and* the community must be health-promoting in order for us to be as healthy as possible.

This chapter highlights the concept of community assets – the things that help people be healthy. Healthy people come from healthy communities with plentiful assets (safe environments, healthy food, housing, jobs, opportunities for recreation, safety, etc.). Many unhealthy people come from communities that do not have access to these same assets.

If we want a healthier population, we need to focus more on those assets in a community that help make it easier for people to be healthy; help people to make the healthy choices and make those choices easier for them to practice. The authors lay out some important areas for moving forward for a truly population-based approach for healthy people in healthy communities.



# FIGURE NOTES

Throughout this chapter, the health care and physical resources per capita were based on 2007 US Census population estimates for Massachusetts cities and towns, aggregated by regions, and presented per 100,000 population.

Confidence intervals (CI) were calculated for all statistics presented. To determine whether a regional statistic was higher or lower than the overall state level, 95% confidence intervals were calculated and compared with that of the state, unless noted otherwise. If the regional lower 95% CI limit was higher than the upper 95% CI limit of the state rate, then the regional rate was *statistically higher* than the state rate. If the regional upper 95% CI limit was lower than the lower 95% CI limit of the state rate, then the regional rate was *statistically lower* than the state rate. If the confidence intervals overlapped, the regional estimates were reported as similar to the state level and no further comparison was made.

**Figure 2.1:** An acute care hospital is any hospital licensed under Section 51 of Chapter 111 and which contains a majority of medical-surgical, pediatric, obstetric, and maternity beds, as defined by the Massachusetts Department of Public Health.

**Figures 2.3, 2.4, 2.5:** Physicians includes all full and licensed physicians with a Massachusetts business address. It should be noted that a certain percentage of full and active licensed physicians with a Massachusetts business address do not practice clinical patient care or do not practice full time. Many Massachusetts physicians also teach and/or participate in research rather than provide clinical patient care. Primary care physicians include general practice, family medicine, pediatrics, internal medicine and OB/GYN.

**Figure 2.6:** Some HPSAs are designated by census tract only. Primary Care and Dental HPSAs are determined based on federal guidelines set forth by the Health Resources and Services Administration (HRSA). HPSAs in developmental stages are areas currently being evaluated by the Primary Care Office and/or HRSA for shortages. Applications are reviewed and submitted by the MDPH-Primary Care Office to the HRSA Bureau of Health Professions, Shortage Designation Branch. For specific guidelines: <http://bhpr.hrsa.gov/shortage/>; Primary Care Office contact: <http://www.mass.gov/dph/primarycare>.

**Figure 2.8:** Overall response rate for community survey varied by region, ranging from 48% to 80%.

# ENDNOTES

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