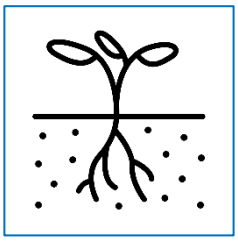
# Cambridge, MA
# Going deep to grow



*Healthy Eating and Active Living Strategies to Address Root Causes of Health Inequities in the City of Cambridge*

## Prepared for

Cambridge Food and Fitness Policy Council

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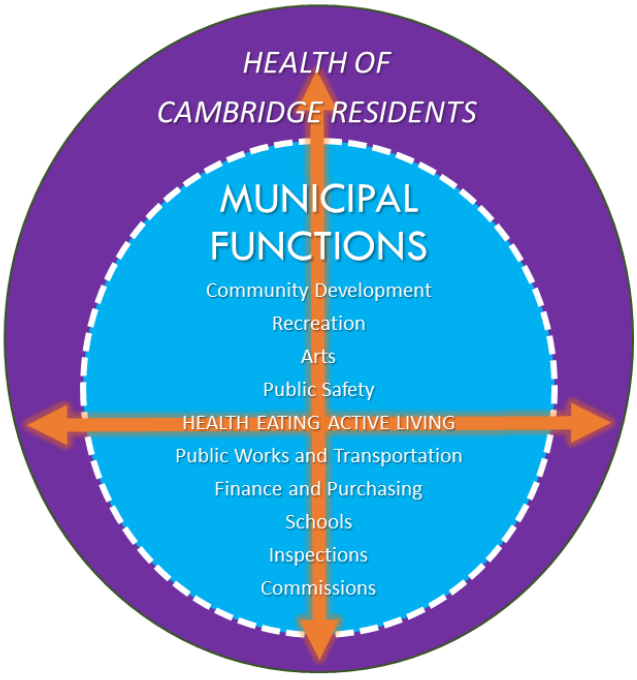
## Introduction

Health begins in our neighborhoods: our homes, our workplaces, our institutions, and our public spaces. Like the soil for a plant, our neighborhoods provide the 'nutrients' needed to grow up healthy and lead a life as free as possible from illness. And, our practices – both past and present – have the potential to create neighborhoods that are either sufficient, or deprived of, the essential elements of a healthy life.

The purpose of this report is to propose strategic healthy eating and active living (HEAL) actions that will support the current and future health needs of the Cambridge residents by targeting natural, built, and social elements of the city's neighborhoods. In particular, it focuses on those places in the city where residents do not yet currently enjoy the beneficial health outcomes that many others in the city currently do.

The report presents different perspectives on available data and on how other domains of city government – such as community development, transportation, and governance – enhance HEAL work and contribute to healthier outcomes for residents. Furthermore, the report offers evidence-based and –informed strategies that should be used in policy, project, and program decision making.

*Figure 1. HEAL Strategies: Independent and Integrated*



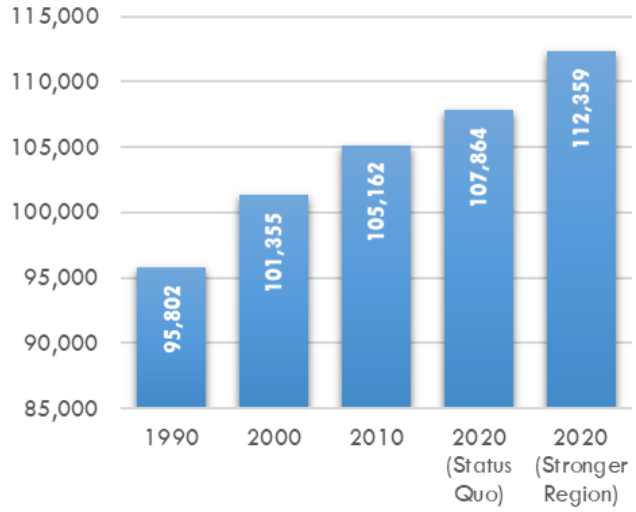
## Background

Cambridge has long-promoted community health by listening to the needs of residents and creating conditions for healthy food environments in the City. As early as 1992, the Healthy Children Task Force, a community coalition including civic leaders, clinicians, public health professionals, educators, and researchers, was focusing on health and environmental changes. The City was awarded the Innovation in Prevention Award in 2007 by the U.S. Department of Health and Human Services for work addressing childhood obesity. In 2012, Cambridge became a Mass in Motion community and this work was integrated into the Food and Fitness Policy Council. The City of Cambridge received the Inaugural Robert Wood Johnson Foundation 'Roadmaps to Health' Prize in 2013 with the community-wide focus on health. Despite many successes - particularly through the partnerships catalyzed by the Community Engagement Team which focuses a lens on low-income new immigrants and American Born Blacks - disparities remain, and an understanding of the communities' health status through the lens of the social determinants of health continues to evolve. In 2014, the Cambridge Public Health Department conducted a Community Health Assessment and created a 5-year Community Health Improvement Plan with Healthy Eating and Active Living (HEAL) as one of four priority areas. The work under the HEAL priority area, which includes policy and systems changes and environmental improvements, is on-going and increasing in scope.

### The City Of Cambridge

Cambridge is the fifth largest city in Massachusetts and home to a vibrant mix of residents. More than 110,000 people live in the city[1], including students attending one of several higher education institutions, families, young professionals, and older adults. During the past several decades, the population has been growing (Figure 2).

*Figure 2: Cambridge Population 1990-2010*



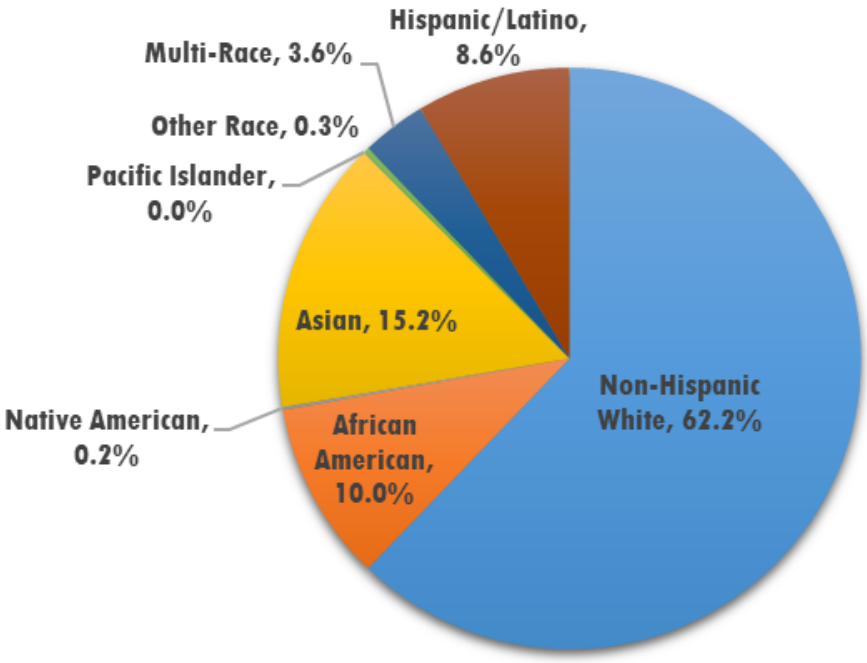

*Source: (Census 2010), and 2020 Projections (MAPC)*

[1] ACS 2012-2016 5 year estimates

Millennials and older adults (aged 25-34 and 60-74, respectively) represent an increasingly larger portion of the population.[2] It is projected that by 2030, the older adult population (aged 65 and older) will increase by nearly 40 percent (approximately, 14,000 residents) and the 5-19 year old population will grow by over 20 percent (to approximately 16,000 residents).[3]

Since 2000 the City has become home to a more racially and ethnically diverse set of residents, with the change attributed to an increasing percentage of Asian and Latino residents (Figure 3). Notably, in this time, the percentage of Black residents has decreased (-2.3 percent), and the City remains a majority-non-Hispanic White city (62.2 percent).

*Figure 3: Cambridge Population by Race and Ethnicity*




*ACS 2012-2016 5-year estimates*

## Household Income and Employment

Financial security describes the degree to which residents are able to have financial independence and control. In 2014, an estimated 45,000, or 40 percent of Cambridge residents were financially insecure.[4]

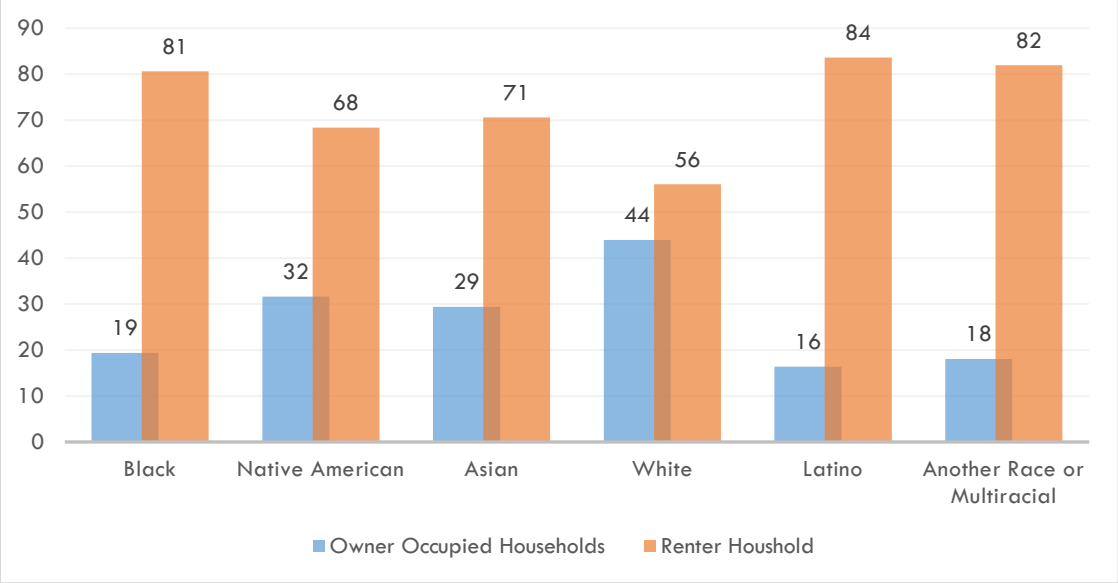
Cambridge is a city with clear patterns of income inequality. With a median household income of $83,122, the average Cambridge household makes more money than the average Massachusetts household (median household income of $70,954).[5] However, on the other extreme, Cambridge

[2] Census 2010.
[3] MAPC Stronger Region Projections
[4] TDC, January 2017, "Cambridge Needs Assessment."
[5] ACS 2012-2016

has a greater proportion of residents in poverty (14 percent) than the state average (approximately 10 percent).

The cost of housing in Cambridge adds an additional burden on many residents (Figure 4). One out of five Cambridge rental households are severely cost burdened, meaning they pay 50 percent or more of their income on rent.[6] The high rent burden makes it harder to pay for other needs such as healthy food and health care.

*Figure 4: Housing Tenure by Race and Ethnicity (percent)*




*Source: ACS 2012-2016, 5-year estimates*

Unemployment in Cambridge (5.4 percent) is comparable to the county (5.4 percent), and lower than the state (6.8 percent).[7] This translates into about 3,700 of Cambridge residents who are unemployed. Black and Hispanic residents and those living in The Port, Wellington-Harrington, and MIT neighborhoods have higher rates of unemployment than the population on the whole and the City generally.

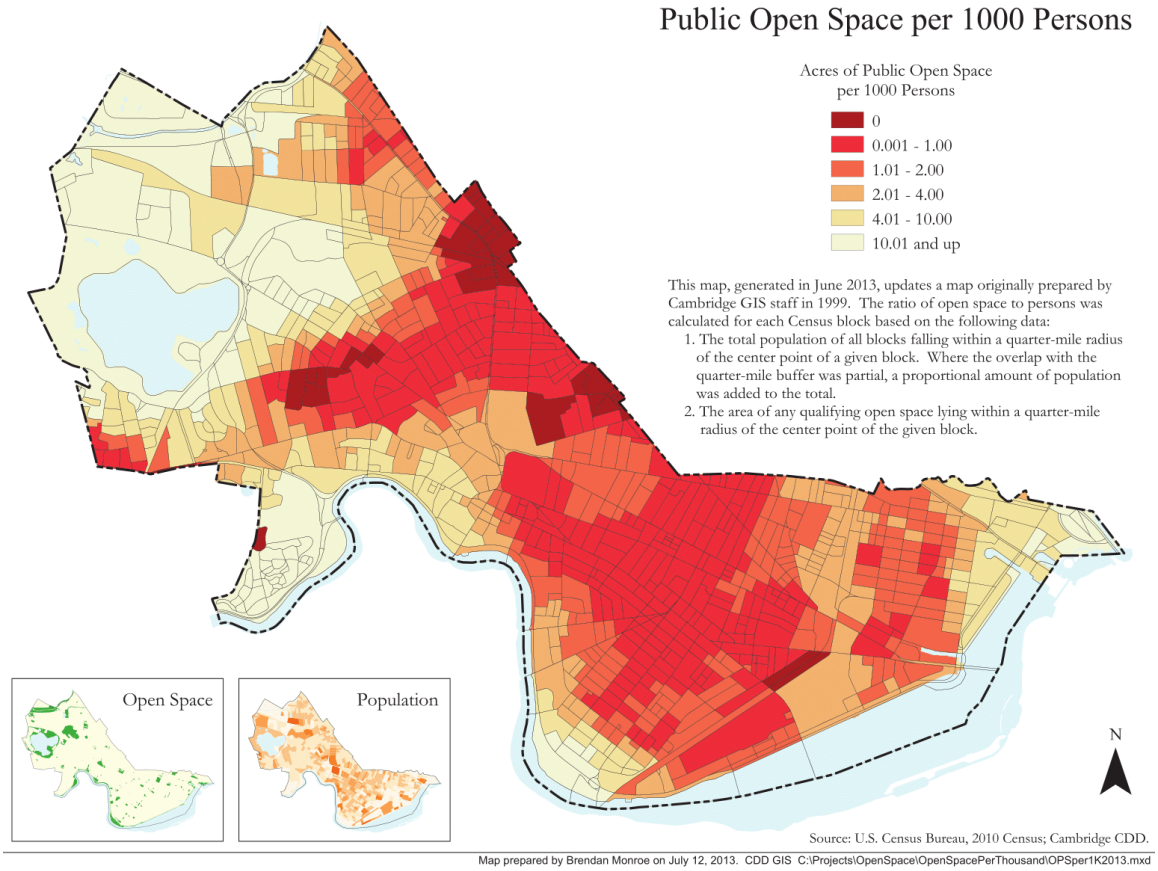
## Open Space in Cambridge

Cambridge residents place high value on open spaces for enjoyment of the natural environment, sports and exercise, and for gardening; and they actively use these assets. Social influences appear largely unexplored in this area. When surveyed, over 85 percent of residents said they or someone in their household had visited a park at least 3 times within the year; 59 percent visited 13 or more times.[8]

Figure 5 describes open space availability by Cambridge residents across the city.

[6] ACS 2012-2016
[7] TDC, January 2017, "Cambridge Needs Assessment."
[8] TDC, January 2017, "Cambridge Needs Assessment."

*Figure 5. Open Space Availability by 1000 persons in 2010*




*Source: Cambridge Community Development Department*

The Cambridge Recreation division, which is part of the Department of Human Services, manages the use of fields for sporting groups in Cambridge. One strategy is to require users to acquire a permit for field use. This helps to coordinate use of field space, but the system also makes it less assessable to new immigrants and emerging groups who have expressed that they find the system difficult to navigate, and that it does not allow for spontaneous play. To make fields more accessible the Recreation Division is making it priority to first serve youth, especially Cambridge Public Schools. In an effort to become more transparent and equitable in delivery of service in both providing and permitting field space, the Cambridge Recreation Division is currently working with members of the Community Development Department and IT (Open Data) to identify emerging trends to promote greater equity in field use, especially among Cambridge-based youth sports organizations.[9]

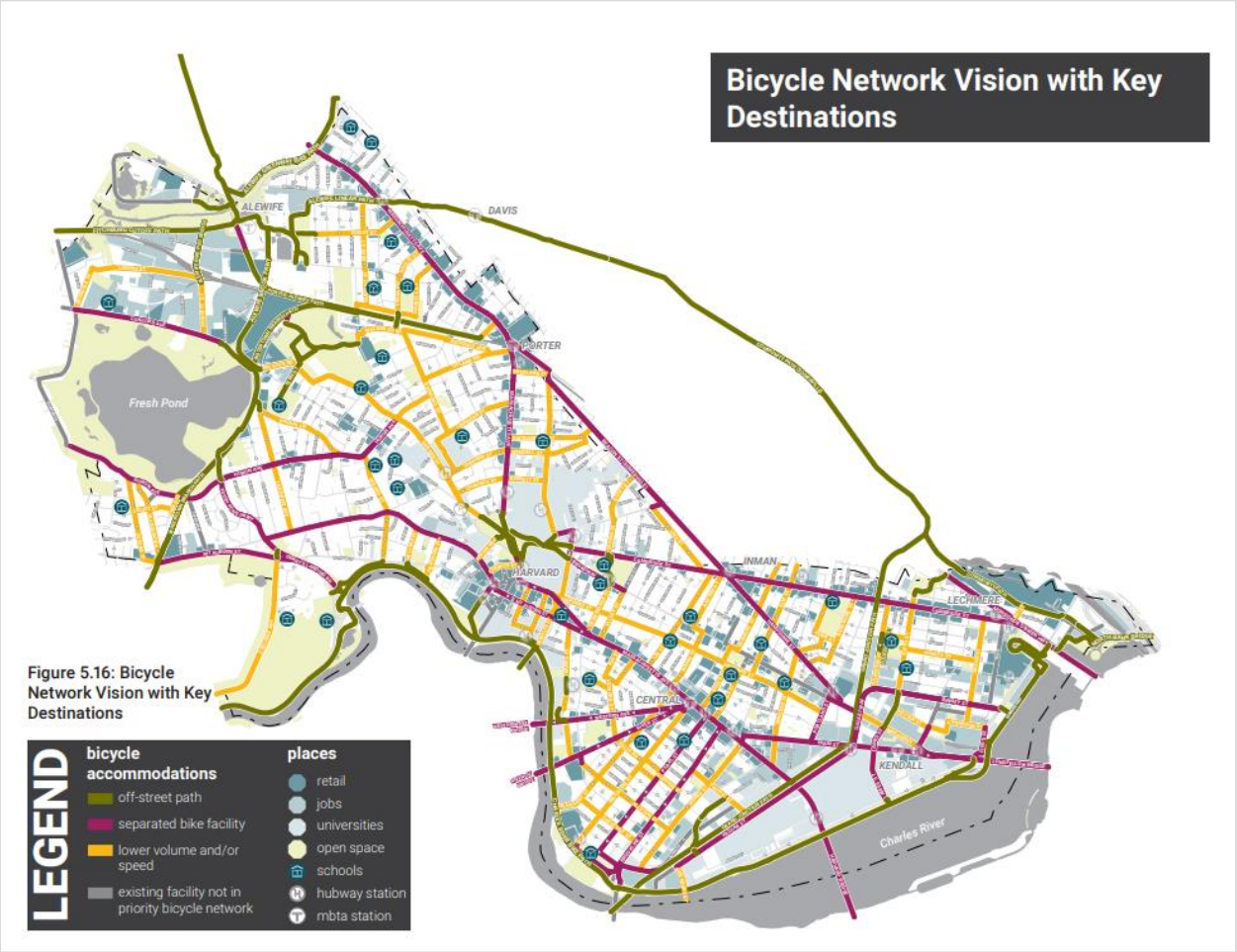
## Health and Active Transportation

Cambridge is continuously improving infrastructure and systems for safe walking and bicycling, such as new bike lanes, pedestrian crossing, real-time transit displays and the adoption of Vision Zero and development the Street Code. Walking or cycling is an easy way to increase physical activity, particularly for those facing the time or monetary restrictions of gym memberships, fitness classes,

[9] Report to City Council October 2017: FieldUse2017, Cambridge Recreation Division

or children's sports. Regular cycling of just 20 miles per week can cut your risk of heart disease by 50 percent.[10] Brisk walking 22 minutes per day leads to a 30 percent reduction in the risk of developing hypertension.[11] Unfortunately, and frequently due to a combination of environmental and socioeconomic factors, low-income individuals are less likely to get recommended levels of physical activity and experience higher rates of injury contributing to worse health outcomes than the general population.[12] Providing safe infrastructure provides the option to safely use active transportation, which can benefit low-income residents.

*Figure 6. Proposed Cambridge Bicycle Network*




*Source: Cambridge Bicycle Plan: Toward a Bikeable Future, 2015.*

Cambridge has a Safe Routes to School program. It is still developing the required systems and infrastructure to be well-utilized by families in all the Cambridge Public Schools, but the program is making steady progress. Walking and bicycling to school is a low-cost opportunity for physical activity for children and parents and can help prevent obesity, improve cognition, benefit behavior,

[10] https://www.medicalnewstoday.com/articles/225940.php
[11] WHO 2000
[12] Lovasi et al. Built Environments and Obesity in Disadvantaged Populations. Epidemiologic Reviews, 2009; Heinrich et al. Associations between the built environment and physical activity in public housing residents. International Journal of Behavioral Nutrition and Physical Activity, 2007.

and decrease traffic congestion for a safer pedestrian environment. Walking and biking often takes less time than driving. Children in low-income and single-parent families often cannot afford the time or equipment to teach children to bicycle and walk safely to school. Safe Routes to School helps develop healthier and physically active habits of daily life. The program helps in particular to mitigate the lack of access to bicycling which may not be as accessible to many low-income and new immigrant populations, due to affordability, unfamiliarity, and/or lack of access to the time and space involved to teach children. In 2014, in a series of focus groups on physical activity, low-income and immigrant parents expressed a priority for children to learn safe walking routes and have training in bicycling with a safe route to get to school.

Despite these resources, Middle Grade Health Survey (6-8th grade) data show that almost 20 percent of girls and about 17 percent of boys exercise for 30 minutes one or no days per week. Of the children who reported 30 minutes of exercise 6-7 days a week, the highest number were white. The most who reported exercising one day or less per week were black, multi-racial and Hispanic. The need for continuing progress in the Safe Routes to School through Policy, Systems and Environmental (PSE) changes is clear, yet there is evident need for a deeper understanding of disparities in physical activity and social influences.

### Food Insecurity in Cambridge

Disparities in food security exist. Food insecurity refers to the state of having inadequate access to nutritious food to live a healthy and active life. In Cambridge, households experience hunger to a greater extent than the average household in Massachusetts. A review of the data shows that an estimated 13 percent of residents are food insecure,[13] whereas the Massachusetts rate is approximately 10 percent.[14] A 2015 survey of 400 Cambridge residents had similar findings, with 14 percent of respondents reporting that they worried their food would run out before they had money to get more.[15]

Estimated food insecurity rates vary across the City. The Port and MIT neighborhoods[16] include census tracts with the highest rates of food insecurity (21 and 25 percent respectively). Portions of the Wellington-Harrington, East Cambridge, Riverside, and North Cambridge neighborhoods also have high food insecurity rates between 18 and 20 percent. In the United States, poverty and food insecurity disproportionately impact people of color, particularly Black residents.[17] This is true in Cambridge, where the census tracts with the highest food insecurity rates generally experience comparatively higher poverty levels and have a greater percentage of residents of color, including Black residents.

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[13] Feeding America and Greater Boston Food Bank, 2015.
[14] Feeding America, 2015.
[15] http://www2.cambridgema.gov/CityOfCambridge_Content/documents/Incomepercent20Insecurity percent20Reportpercent209.24.2015.pdf
[16] Cambridge Neighborhood maps: http://www.cambridgema.gov/~/media/Files/CDD/Maps/Neighborhood/cddmap_neigh_index.pdf?la=en
[17] Feeding America. Hunger hits African American communities harder. http://www.feedingamerica.org/assets/pdfs/fact-sheets/african-american-hunger-fact-sheet.pdf

Poverty and food insecurity are closely linked and associated with poorer health outcomes. Those experiencing poverty are likely to concurrently have limited financial resources, competing priorities, stress, and other resource-related hardships, that make it difficult to maintain good nutrition and health and address existing health conditions. Further, poorer neighborhoods also tend to have fewer health promoting resources, such as full-service grocery stores. These compounding factors can result in a range of health issues, among them, obesity, diabetes, and high blood pressure, among others.

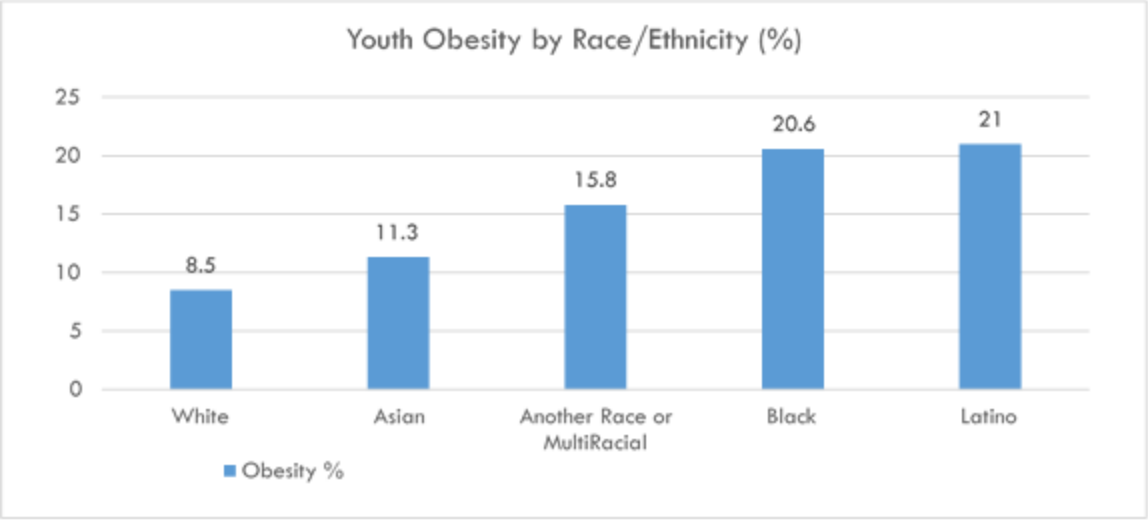
## Diet Related Chronic Disease

As indicated in the Community Health Assessment, Cambridge residents do have a sense that it is a healthy city and offers a wide variety of healthy eating options and opportunities to be physically active.[18] Data on diet-related chronic disease place Cambridge as healthier on the whole, compared with the rest of the state. Data show that 12.5 percent of adults are obese, 13.9 percent have high blood pressure, and 4 percent have diabetes. Across these chronic diseases, these rates are nearly half of the comparative state rates (approximately 22, 26, and 7 percent, respectively).[19]

Though Cambridge has low average rates of diet-related chronic disease, residents of color and low-income residents are still disproportionately impacted. There is limited data on adult diet-related disease by income and race in Cambridge, but data on childhood obesity provides a window into income- and race-based disparities.[20]

Generally, obesity prevalence among K-8 Cambridge Public School students has declined in recent years, from 17.1 percent in the 2009-2010 school year to 14.4 percent in the 2014-2015 school year.

*Figure 7. Youth Obesity by Race/Ethnicity*



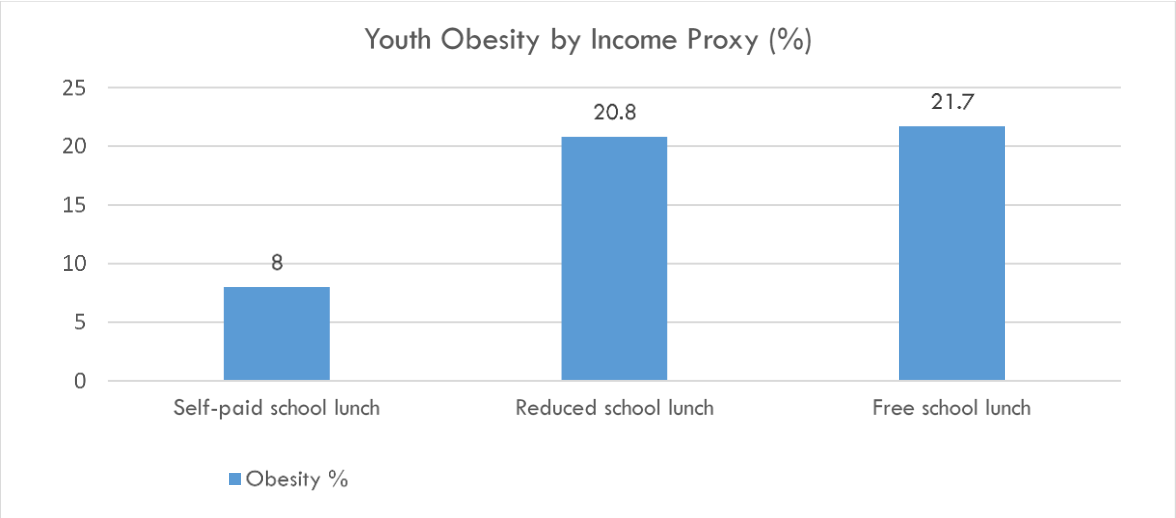

[18] Cambridge Health Assessment, 2014
[19] Cambridge Health Indicators, 2013
[20] Cambridge Health Assessment, 2014

*Source: Cambridge Public Schools 2014-2015*

Still, a snapshot of 2014-2015 (Figure 7) shows that non-White students had higher rates of obesity, with the highest rates among Black and Latino students. At approximately 21 percent, Black and Latino childhood obesity rates were equivalent to the Massachusetts rate.

Further, where free- and reduced- lunch eligibility is determined by income, 2014-2015 data show that low-income students have higher rates of obesity, significantly greater than higher income students and, again, equivalent to Massachusetts averages.[21]

*Figure 8. Youth Obesity by Income Proxy*




*Source: Cambridge Public Schools 2014-2015*

[21] Cambridge Youth Weight Surveillance, Grades K-8, 2009-2015. Note: Students were classified based on BMI percentiles, with obese defined as BMI ≥95th percentile.

## Cambridge in Motion and Focus of Initiatives

Cambridge in Motion is part of the state's Mass in Motion (MiM) program and sits within the Cambridge Public Health Department. Over the last year, the Cambridge in Motion coalition, which is part of the city's Food and Fitness Policy Council, as well as the MiM coalitions across the state, have been engaged in a new round of strategic planning. The strategic planning focuses on moving current MiM work plans away from programs focused on healthy eating and active living towards policy, systems and environmental change (PSE) focused on healthy eating and active living that uses a racial justice frame.

Cambridge in Motion had already been moving in the direction that is now being set by the statewide leadership, the Massachusetts Department of Public Health, for the entire MiM program. As a result, Cambridge in Motion is in both a supportive and challenging position. Work was already underway to address root causes of racial and other health inequities and much work had already enacted PSE changes in addition to programs. Examples include: systematic changes to public school meals, including development of the internal infrastructure for Farm to School purchasing, taste tests, educational outreach, and revision of food service staff job descriptions to include scratch cooking; the development and piloting of food and fitness guidelines for out-of-school-time programs; Safe Routes to School development of systems to allow for children safely walking and biking to school, including the addition of bicycling into the physical education (PE) curriculum, supported by citywide infrastructure; development of infrastructure to distribute free community meals at select sites with food rescued from university dining services; the formation of the SNAP Match Coalition which provides a system to raise and disseminate doubling funds at select farmers markets; and, partnership with the Community Engagement Team that explored cultural considerations in physical activity and disseminated the results. As can be seen, the statewide MiM program's greater emphasis on PSE is aligned with the Cambridge coalition's work.

Cambridge in Motion, Cambridge Public Health, identified the following priority populations through its Mass in Motion Root Cause Analysis:

- Overweight and obese school age children who are Black/Hispanic
- Overweight and obese children toddler-age to Kindergarten who are Black/Hispanic
- Low-income households, especially single female

The city was already collecting data on school children's body mass index (BMI) in grades K-8 and 10, conducting Middle Grade Health and Teen Health surveys, and furthermore, qualitative explorations, such as the City of Cambridge Community Needs Assessment, the CPHD Community Health Assessment, and the Healthy Eating and Living Project. The work of the Community Engagement Team has included: meeting the needs of underserved communities and new immigrants and families through staff outreach workers, and through the Shining A Light initiative, a deep look into racism and the American-Born Black and immigrant communities.

Cambridge in Motion engaged with the Public Health team at the Metropolitan Area Planning Council (MAPC) to assist with a deeper dive into analyzing results provided by the data, qualitative information, and planning processes conducted to date. The intention was to assist with the development of potential new strategies and activities that could integrate with the work of other city departments. This analysis and support is on-going through Mass in Motion technical assistance.

## Report Inventory and Synthesis

The City of Cambridge, including the municipal departments (e.g., Cambridge Public Health Department) and initiatives like Cambridge in Motion, have collected quantitative and qualitative data, and conducted focus groups that look at the health of residents and the social determinants of health[22]. Cambridge in Motion shared these previous materials with MAPC for review and use in identifying potential new strategies.

MAPC reviewed the numerous reports which roughly fell into the following categories:

- Community Needs Assessments, including the Massachusetts State Health Assessment (2017), City of Cambridge Community Needs Assessment (2017), and Community Health Assessment (2014).
- Population Specific Studies, including Summary of Results from the 2015-2016 Cambridge Teen Health Survey (2016), the Healthy Eating and Living Project report which focused on weight disparities in Black Cambridge Youth (2011), Cultural Considerations in Physical Activity, a report by the Food and Fitness Policy Council (2014), Interviews with the Cambridge Community Engagement Team (CET) (Spring 2018), Field Users 2017, a report on recreational use by the Department of Human Services (2017), and Assessment and Analysis of Issues and Patterns Associated with the Utilization of Open Spaces by Latino Immigrants in An Urban Boston Neighborhood (2010).
- Neighborhood Specific Studies, including the City of Cambridge Neighborhood Statistical Profile (2016) and the 500 Cities Project: Local Data for Better Health for Cambridge, MA (2016).

The review was complimented by discussions with Cambridge in Motion staff and exploration of materials that the staff had developed as part of MiM strategic planning, including a matrix of priority populations and programs, a fishbone root cause analysis, and presentations to the Cambridge Food and Fitness Policy Council.

## Action to Create a Healthy Community: Potential Approaches to New Strategies

As noted earlier, the city and its public health work has included making systems-level changes that support physical activity and healthy eating. There is an emphasis on testing the practicality of new approaches and changes in procedures in relation to real impacts on the city's social, built, and natural environments. An example is the use of Complete Street roadway designs which

[22] The social determinants of health are the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries. Source: World Health Organization.

began as consistent practices across departments and has now become a formal policy for the city.

Correspondingly, the city provides active support in relation to the policy changes. Programs and events like bike fairs and youth employment initiatives provide pathways for prosocial behaviors and reduce barriers to engaging with changes in the built environment (e.g., cycle tracks and bike lanes). It also continuously collects and review data to understand how well investments and initiatives are working in general and for specific populations of residents (e.g., age, race, ethnicity).

The observations that follow are offered to provide a frame that enhances or opens new opportunities for how to approach healthy eating and active living strategies that are consistent with the Mass in Motion program and its Leading with Race guidance to the work.[23]

### Domains of Obesity – A Causal Map View as a Potential Guide for Additional Actions

*Data Point: In 2017, approximately 40 percent of Hispanic and 40 percent of Black, Non-Hispanic children K-8 were overweight or obese as compared to approximately 20 percent of White, Non-Hispanic students (BMI data)*

As described in the previous section, the city uses practices, policy changes, and supportive programming to improve the city's social, built, and natural environments. To assess the relation of these changes to identified needs and priority populations MAPC used an Obesity Causal Diagram (Figure 9, on the following page). The diagram, although not exhaustive, presents a comprehensive view of evidence regarding contributors to unhealthy weights. This framework was used to help identify additional opportunities for testing new practices and laying the groundwork for potential policy change.

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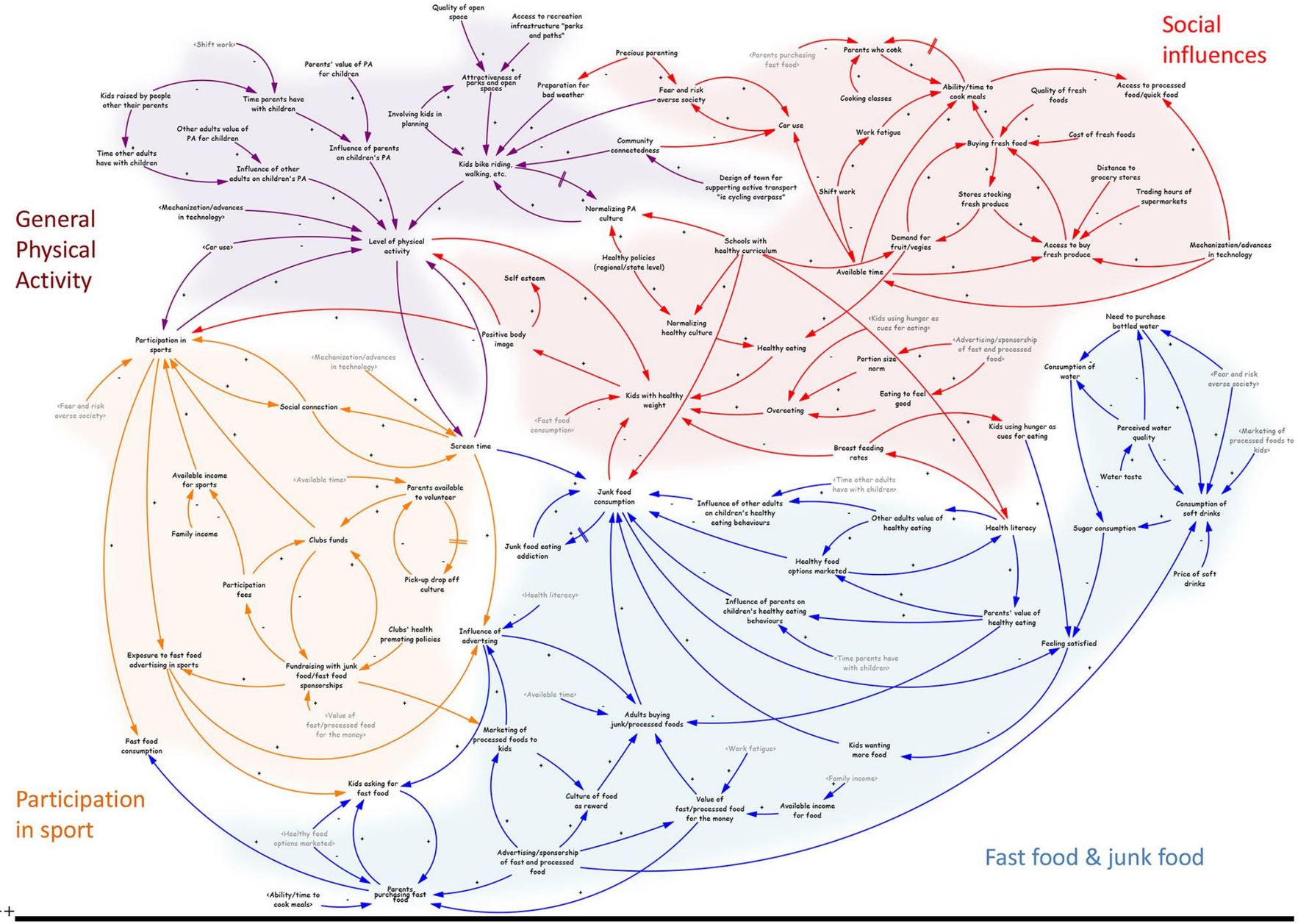
[23] MA Department of Public Health. Guidance for Mass in Motion Municipal Wellness and Leadership Program FY2018. 2017.

*Figure 9. Obesity Causal Diagram*




Source: A Community Based Systems Diagram of Obesity Causes, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129683

When Cambridge data and reports are viewed through the Obesity Causal framework, domains are highlighted where much of the previous work has occurred: general physical activity, participation in sport, and fast food and junk food - which includes sugar sweetened beverages. Interaction with the Cambridge Food and Fitness Policy Council provided examples of these, including a schedule of upcoming bicycle workshops, promotion of the Central Square Farmers Market and matching dollars for SNAP benefits, promotion of tap water as the beverage of choice instead of sugar sweetened beverages, and summer youth employment with the Recreation Department who leads physical activities in collaboration with summer lunch sites.

The review and discussions also indicated an area where progress was unclear, and where opportunity may exist: social influences (particularly as it relates to food and physical activity). As noted earlier, a number of the reports focused on specific racial or ethnic populations; however, few, if any, recounted specific actions that had been taken related to cultural competency, social networks, or socioeconomic status.[24]

As with physical activity, the realm of social influences would be ripe for food-focused HEAL work in the city. This would complement and support the PSE changes already accomplished and those underway, or create space to pilot new work. It could also be an avenue with which to provide more support and opportunities for change with particular racial and ethnic populations.[25]

An example of where this approach could be applied, more generally, is the city's Safe Routes to School strategy. It involves the area of social influences through community outreach and engagement in support of PSE changes. Social influences could be explored more thoroughly in other future strategies related to the physical activity by bringing a more explicit focus on social influences in specific neighborhoods or residents. Similarly, in the focus groups on Cultural Consideration in Physical Activity, participants expressed a need for neighborhood gathering spaces (like parks) for extended families and neighbors to picnic, dance, and play together (like soccer games, tug of war competitions) more spontaneously. This would be an area of further exploration.

A stand-alone policy does not present itself easily in this realm; however, that is not a challenge for the city – it may actually play to Cambridge's strength. As described above, the city has a history of testing practices in real time (e.g., Complete Streets) in order to determine what policy or systems change is needed. For example, the city could pilot in one or many instances of social network interventions to influence health behavior in relation to PSE changes, within specific neighborhoods or communities. As discussed, testing of work in the realm of social influences might be next for HEAL work in the city to support the PSE changes already accomplished and underway.

### *Presence of Priority Populations in Specific Neighborhoods*

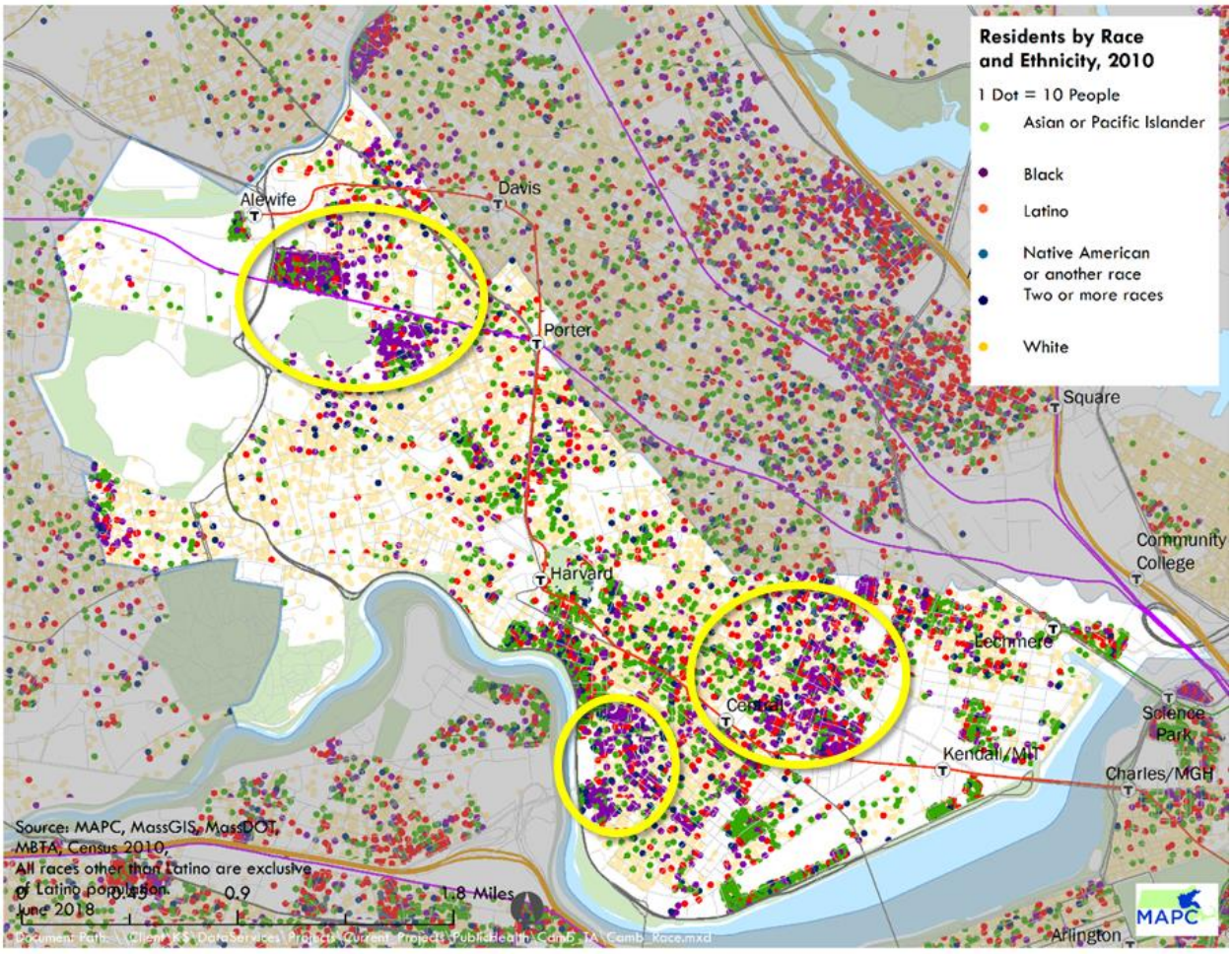
*Data Point: Approximately 50 percent of Cambridge Housing Authority public housing residents are black compared to approximately 12 percent of residents in the city.*

[24] This should not be perceived as categorization of all work occurring in the city, but as an impression from the review of shared reports.

[25] Shelton et al. The Association Between Social Factors and Physical Activity Among Low-Income Adults Living in Public Housing. American Journal of Public Health, 2011.

Using demographic data from the US Census, the location of residents was mapped with a specific focus on race and age, two factors highlighted it the MiM strategic planning framework. Figure 10 (below) shows population density by race in the City of Cambridge.

*Figure 10. Dot Density Map, Population by Race*




*Source: US Census 2010, MAPC*

The figure identifies that there are places in the city that have concentrated pockets of residents of color. These neighborhoods with concentrated populations of color are The Port and Cambridgeport in the southeast portion of the city and the North Cambridge, Cambridge Highlands, and Strawberry Hill in the northwest portion of the city. Each of these neighborhoods, with the exception of Cambridge Highlands, is home to greater percentages of Black residents (ranging from 13 percent – 27 percent) than the city overall.[26]

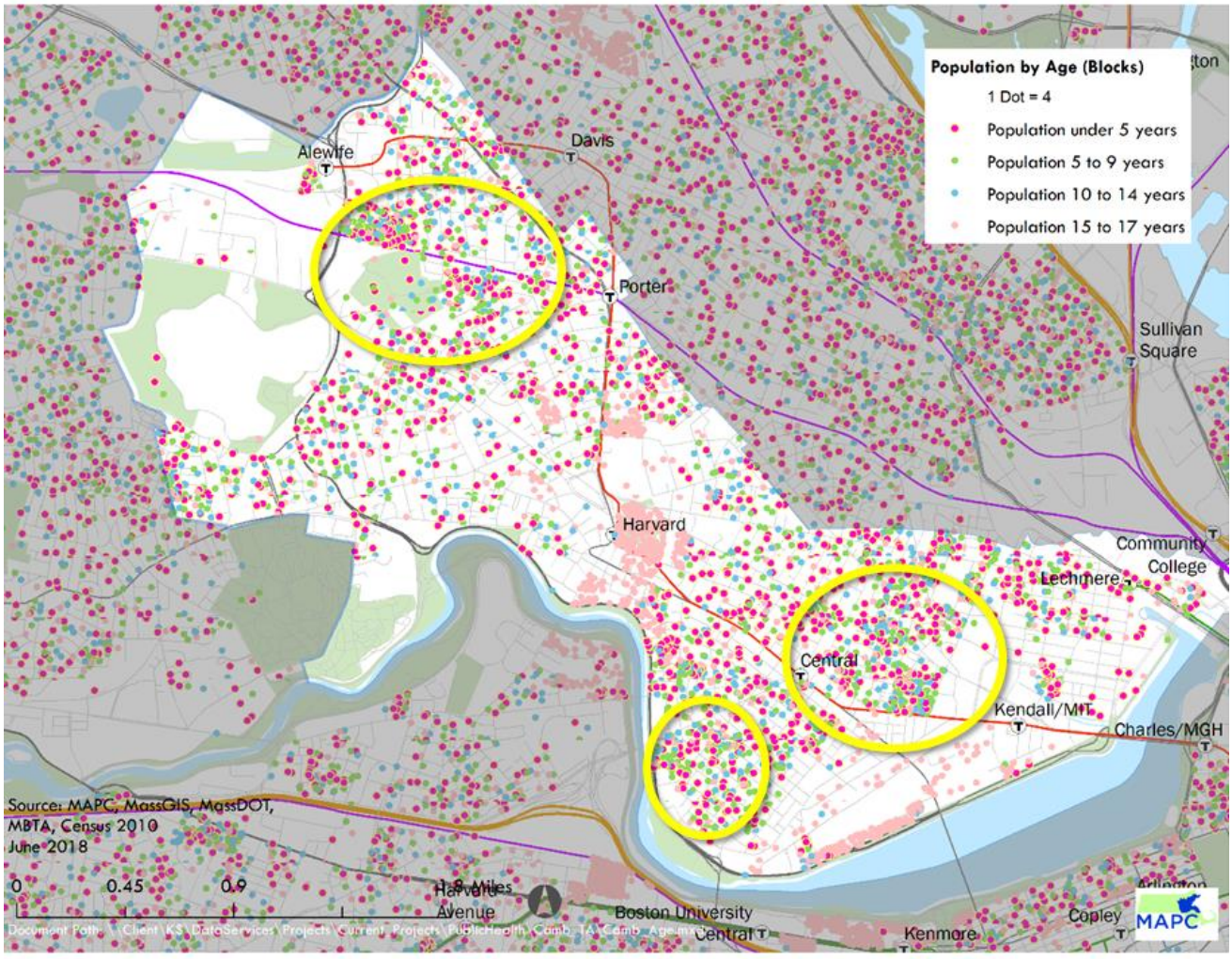
While only 9 percent of Cambridge residents receive public assistance income, these residents are spatially clustered in the same neighborhoods in the city, namely North Cambridge, the Port, East Cambridge, as well as Wellington-Harrington.[27] These neighborhoods are also home to many of the

[26] City of Cambridge, Community Development Department. Neighborhood Statistical Profile. 2016.
[27] ACS 2012-2016 5-year estimates, Households receiving public assistance.

public housing properties in the city, of which approximately 50 percent of residents are black[28] (as compared to 10-12 percent of Cambridge residents overall). Relative to this, children, particularly those living in household headed by a single female; Black or Hispanic; and residents born outside of the U.S. are at a higher risk of financial insecurity.

Mapping of the locations of population by age appears to show concentrations of youth under 14 in a similar neighborhood pattern in Figure 11 on the following page. As with percentages of residents from different races, these neighborhoods, with the exception of Cambridgeport, are home to greater proportions of residents aged 17 and younger (ranging from 12 percent – 28 percent) than the city overall.[29]

*Figure 11. Dot Density Map, Population by Age - Under 18*

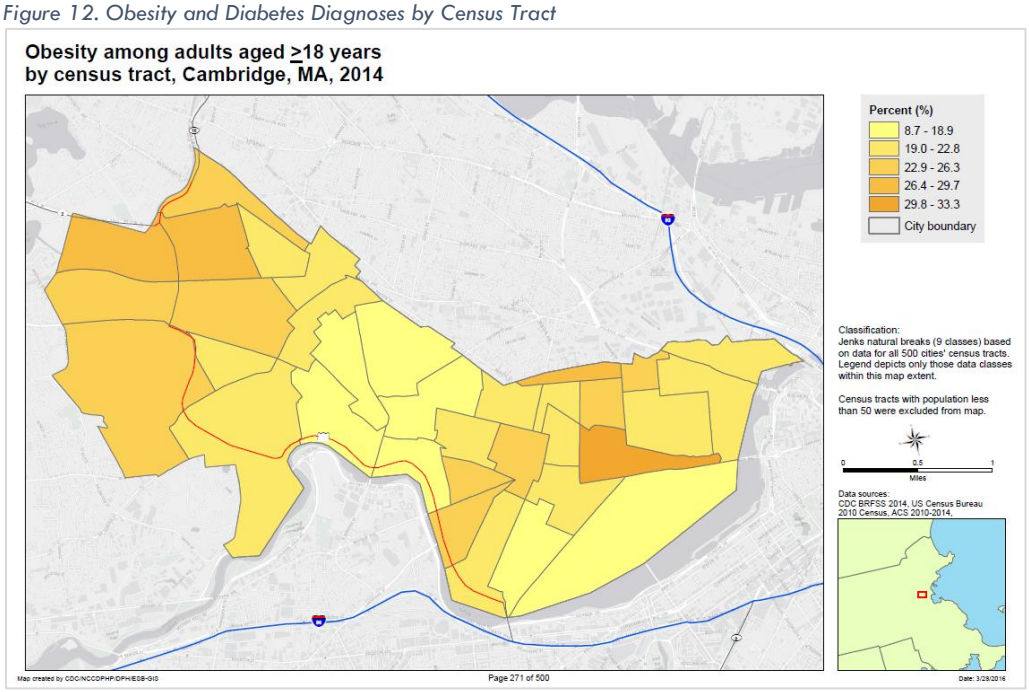


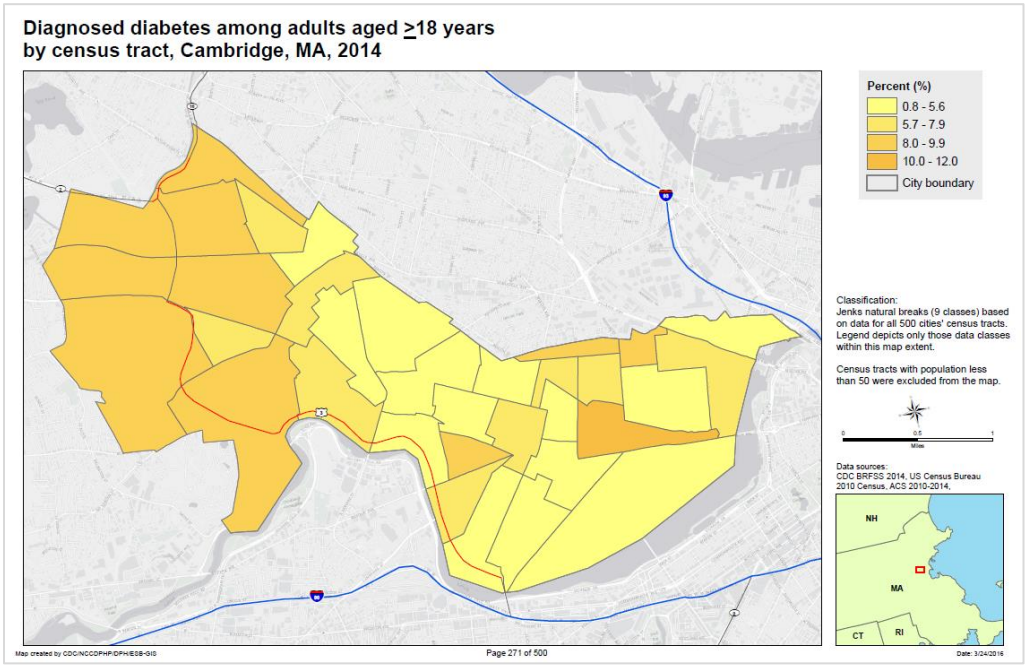

[28] City of Cambridge's FY2016-2020 Consolidated Action Plan, https://www.cambridgema.gov/CDD/News/~/media/F0578462EB02422788794FD03695A02D.ashx

[29] City of Cambridge, Community Development Department. Neighborhood Statistical Profile. 2016.

Lastly, these neighborhoods either align or overlap with census tracts that are estimated to have populations with higher rates of obesity and diagnosed diabetes in the city.

*Figure 12. Obesity and Diabetes Diagnoses by Census Tract*




*Source: Centers for Disease Control and Prevention. 500 Cities Project: Cambridge, MA. 2016*

The overlap of these factors – race, age, and health status – indicates the potential for HEAL strategies to focus on more specific neighborhoods in order to address current health inequities.

## Continue Root Cause Assessment to Reflect Historical Context and Consequences of Policies

*People of color have only a fraction of the net worth of white households in the Metro Boston region. As an example, white households have a median wealth of $247,500 while Dominicans and U.S. blacks have a median wealth of close to zero.*[30]

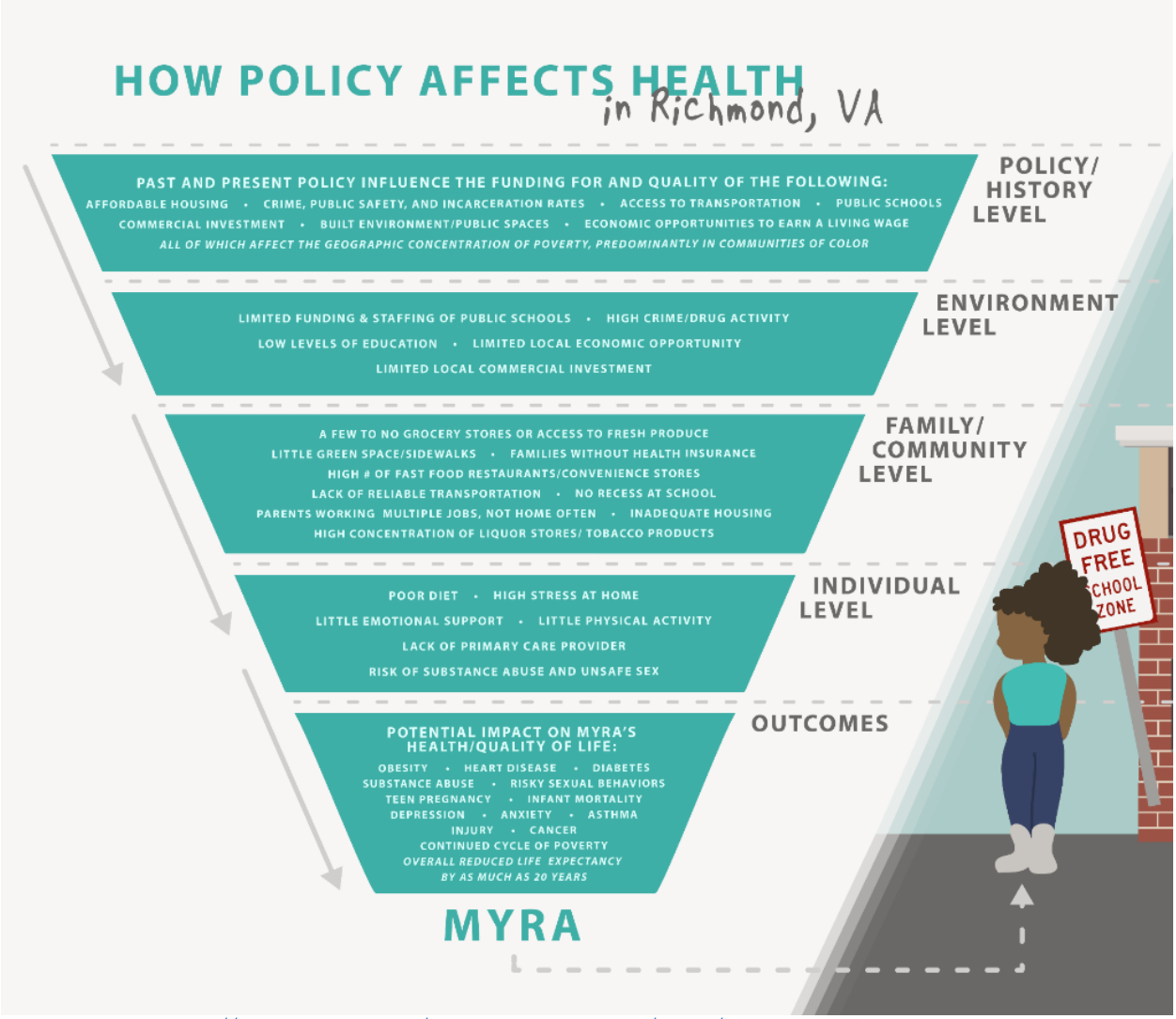
Differences in health issues can be the result of natural causes, such as increased risk of chronic diseases among older adults. Health disparities also can emanate from current and past policies and systems that are unfair, preventable, and grounded in social, political, and historical factors - in other words inequities. For example, past policies that may have encouraged practices such as "geographic steering," where potential renters or purchasers were intentionally directed to highly segregated racial and ethnic minority and poor neighborhoods had effects on households' access to resources and opportunities (e.g., education, employment, opportunities for physical activity, healthy foods, and medical services) that are essential to health.[31]

These factors are often complex and intertwined and in the present can feel like a natural condition to those who have benefited or live with the policies (Figure 13). While these inequities can be expressed in ways that are unique to a community, they often tend to have a similar effect: unfair health burdens.

[30] Federal Reserve Bank of Boston. The Color of Wealth in Boston, 2015.

[31] Shavers and Shavers. Racism and Health Inequity Among Americans. Journal of the National Medical Association, 2006; Williams and Mohammed. Discrimination and Racial Disparities in Health: Evidence and Needed Research. Journal of Behavioral Medicine, 2008.

*Figure 13. Richmond, VA Health In All Policies Infographic*




Source: Richmond, VA, http://www.richmondgov.com/CampaignHealthyRichmond/images/infographicHiAP2.png

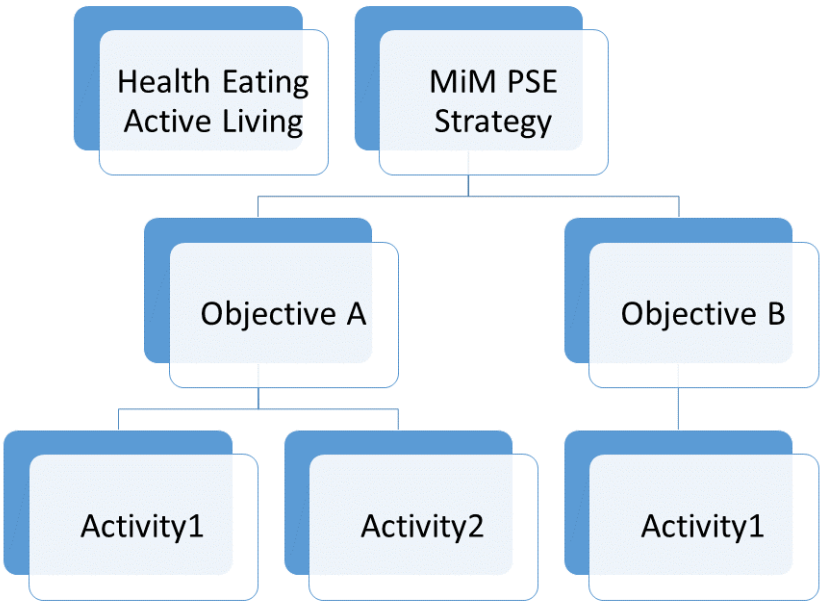
The root cause assessment that has been part of the MiM strategic planning provided an opportunity to assess policy factors as they exist and are expressed in the present. However, an assessment that only looks at the current window of time may be (and likely is) missing historical factors that drive health disparities experienced by the priority populations. A deeper exploration of what the historical factors are and their persistent effects could lead to more effective and corrective activities for the city and its residents.

## Policy, Systems and Environmental Actions for Future Consideration

Cambridge in Motion and the Food and Fitness Policy Council have dedicated a substantial amount of time, thought, and engagement to the Mass in Motion strategic planning process. The seriousness of the approach shows through on the work conducted and the materials collected and reviewed to date.

*Figure 14. Template and Example*

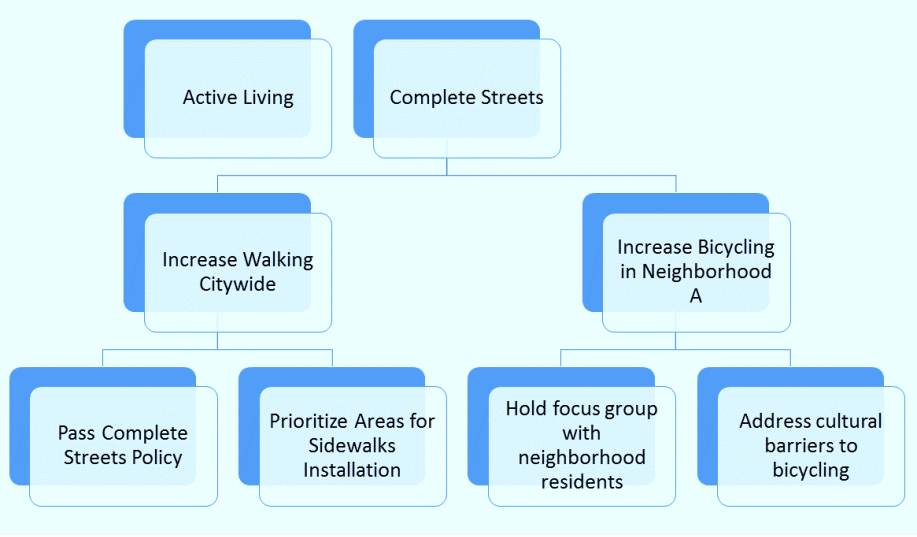
The reflections offered above layer on top of this substantive previous work. The section below then seeks to offer examples and actions for Cambridge in Motion to consider as it sets about implementing MiM-consistent strategies and determining related actions.




## Approach

MiM strategies can be characterized as an overarching and organizing goal. The strategies provide specific direction for a set of activities that will produce PSE changes that are consistent with a goal of healthy eating or physical activity (Figure 14).

For the purpose of these suggestions, the targets are at the activity level which may promote more effective implementation of the chosen strategy or update or changes to the current strategy.




## Fairness across places

The alignment of the priority populations with specific neighborhoods suggests an association with place and health disparities. Both as a communication tool and an activity, there is potential for targeting activities to specific geographies in the city (i.e., identified neighborhoods). The work could entail short-term programming, review of policies that apply or may disproportionately affect the neighborhoods, and the reallocation and concentration of resources. Work should be organized around specific process measures that increase the potential for the work to have its intended effect of reducing identified disparities.

The use of the term 'fairness across places' is also a phrase that can be used in communications. It comes from work conducted by the Frameworks Institute[32] on the framing of food and fitness as a public policy issue. An example of this is:

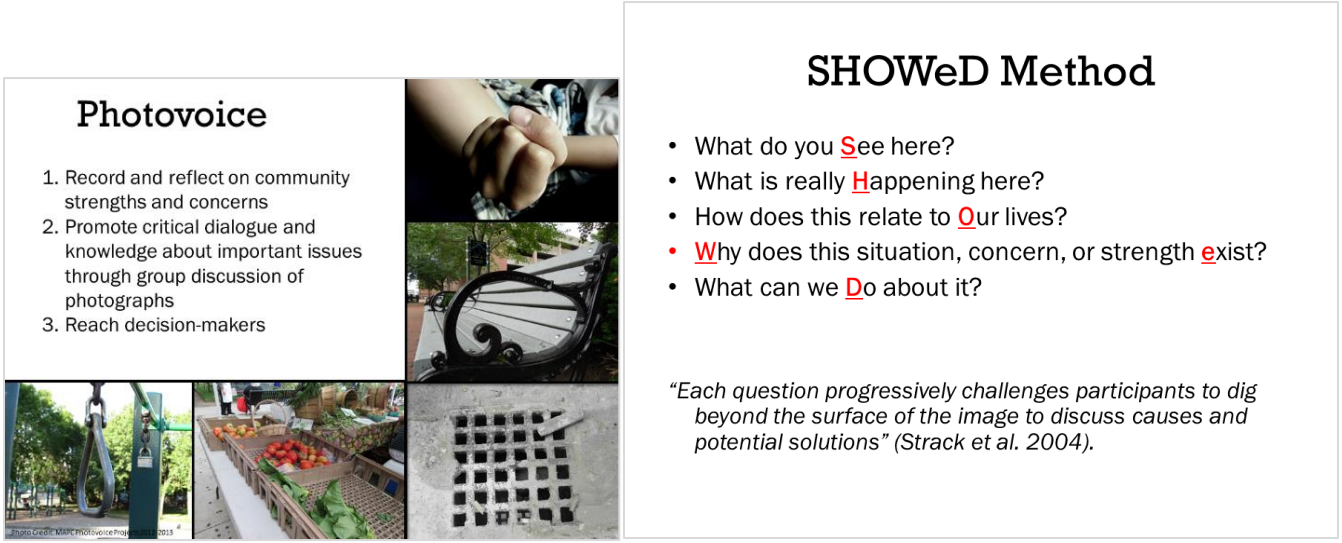
> *Some neighborhoods are struggling because they are not given a fair chance to be healthy. Where we live or work – what we call the food and fitness environment – is one of the most important things determining whether we end up fit and healthy or not. Being physically fit and well-nourished requires more than access to a gym or a diet program. When families and children do not have access to a healthy environment or opportunities to make healthier choices, their health is undercut as is their quality of life.*

The example is offered for use as promotion of a neighborhood-based focus to the work as well as for response to questions about why certain places would receive more attention or resources.

### Participatory Research and Action

Participatory Action Research (PAR) and similar approaches offer models for how to recognize social influences and connect findings to policy change. PAR itself promotes population knowledge and engages residents in research processes and strategy development. Given that the disparities are among certain populations, PAR or another participatory research and organizing approach may lend itself to addressing root cause issues. It may also reveal policy change opportunities that might be in the blind spot of people who are from a different background. Helpful resources in pursuing such work include the Massachusetts Institute of Technology (MIT) CoLab and materials that are part of the Research for Organizing toolkit.[33]

*Figure 15. Photovoice Content*




*Source: Introduction to Photovoice and Placemaking, MAPC*

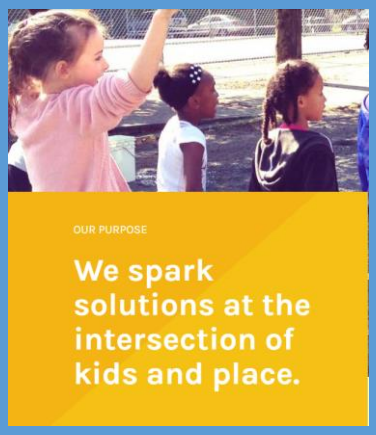
[32] http://frameworksinstitute.org/toolkits/foodfitness/

[33] MIT CoLab: https://www.colab.mit.edu/blog/2018/2/6/participatory-action-research; Community Development Project Research for Organizing Toolkit: http://www.researchfororganizing.org/

A specific approach for Cambridge in Motion might be to expand or complement ongoing youth-led work. As an example, an activity could be a series of Photovoice projects that involved pre-K and K-8 students (and likely their parents) with a focus on obesity.[34] Seeing various environments through the eyes of the youth participants may reveal actions that can be more effective or new way to implement the MiM strategies in targeted neighborhoods.

**Raising Places Initiative**

The Raising Places Initiative is a program supported by the Robert Wood Johnson Foundation. The initiative focuses on changing communities by merging a perspective on children's health and place. The initiative is also explicit about using a human-centered design approach to source ideas locally and to quickly test then implement promising opportunities for change.




There are currently six communities in the initiative. A review of the program does not indicate that there are current opportunities to join the work. However, the Raising Places Initiative provides a model and a set of activities that could be used as part of Cambridge in Motion's work. It may also position the city to join if more communities are invited to take part.

## Racial Reframing in a Local Context

Racial reframing is another way to think about the HEAL work in the City of Cambridge and how proposed policy changes may affect health of the priority populations as well as residents in general. While similar work has occurred for the overall strategic planning process, the Cambridge in Motion team could pilot the use of reframing as new municipal policies or private-sector projects are proposed in the places that are home to priority populations. The approach could be more prominently reflected in departmental action plans and further enhance strategies that are aligned with existing policies, such as the Community Health Improvement Plan and other citywide policies. For example, racial reframing could take a deeper dive in exploring if there are existing policies or investments that limit economic

[34] Sample of a Photovoice Facilitator's Toolkit: https://www.wpunj.edu/uppc/images/UPinPC+Photovoice+Facilitator+Toolkit+Final.pdf

opportunity or mobility of the priority populations. If so, what strategy might address those policies in place and refashion them to reduce barriers to more healthy environments.

A specific tool that's applicable for a pilot effort is the Racial Equity Impact Assessment developed by Race Forward (https://www.raceforward.org/practice/tools/racial-equity-impact-assessment-toolkit). It provides a sample set of questions to identify, anticipate, assess, and address potential adverse effects of a policy or project on different racial groups.

### Formalizing Health in All Policies in the City of Cambridge

The City of Cambridge employs a number of practices that seek to promote the health of residents and protect them from factors that may cause harm. As noted earlier, the work occurs through health department as well as through work of other departments including public works, community development, and recreation.

In some cases, the practices have been captured in policies; in most cases they still occur as practices that are regularly used and understood by officials and staff. It is this latter group of practices that could potentially go away when, for example, staff changes or there is a limit on resources or change in leadership. A way to ensure these practices, as well as other health-promoting efforts, continue to enshrine them in a policy (e.g., ordinance, resolution).

Since much of the city's work does consider health already, it would be a prime candidate for formally adopting legislation related to Health in All Policies (HiAP). HiAP is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas and providing cross-sectoral 'win-win' outcomes. Specific actions to implement a more formal HiAP approach include more formal partnerships that generate cross-department work (e.g., task force), use of data and evidence (e.g., local chronic disease data), and creation of shared communications (e.g., framing social determinants of health). A listing of potential strategies and tactics are included in the Appendix.

Based on the review, it appears the city has already applied many of the strategies and tactics above but not in a systematic and continuous fashion. Adoption of a formal HiAP piece of legislation (and related activities) would ensure resources and capacities are made available to address social determinants and assist populations that do not yet enjoy the same health outcomes as the city does as a whole. An example of a formal position on HiAP in Massachusetts is the City of Boston where the Health Commission is organizing a HiAP Taskforce that integrates many city departments and commissions. At the state level, California and Vermont have adopted policies that created formal HiAP taskforces to review state decision-making and investments.

### Next Steps

A hope for this report is that it helps the Cambridge in Motion staff, who are already incredibly capable, as well as other departments and city leaders accelerate their shift and focus to place-based health strategies. The information and resources in the report should enhance ongoing work and offer staff new angles to take in tackling systemic inequities and their effects on people's health. Change in the current health disparities will come incrementally and through sustained efforts, but as previous work has shown,

the Cambridge in Motion staff as well as other supporting city resources and infrastructure have what it takes to achieve this new reality.

## Appendix

HiAP Strategies and Tactics[35]

| Strategy | Tactics |
|---|---|
| 1. Developing and structuring cross-sector relationships | • Formal committee, council, or task force<br>• Temporary workgroups or teams<br>• Voluntary networks<br>• Informal or formal consultation mechanisms<br>• Memorandums of understanding<br>• Permanent structures for management |
| 2. Incorporating health into decision-making processes | • Cross-sector strategic planning and priority setting<br>• Development of common goals or objectives across sectors<br>• Health lens analysis<br>• Cross-sector community needs assessments<br>• Health Impact Assessment<br>• Checklists, guidelines, or protocols that integrate health criteria<br>• Embedding health considerations (goals, objectives, metrics) into existing initiatives |
| 3. Enhancing workforce capacity | • Training or cross-training<br>• Cross- sector curriculum development<br>• Networking meetings<br>• Joint conferences<br>• Hiring "nontraditional" staff<br>• Incentives (e.g., criteria in performance evaluations, promotions) that reward cross-sector efforts<br>• Co-locating staff or facilities |
| 4. Coordinating funding and investments | • Joint cooperative agreements, contracts, grants, or other financial support mechanisms |

[35] Source: Seven determinant groups of actions to facilitate HiAP, Gase et al., 2013.

| Strategy | Tactics |
|---|---|
| | • Coordinated investments in communities<br>• Criteria for making funding decisions based on health objectives and performance measures<br>• Cross-sector review of funding announcements or applications |
| 5. Integrating research, evaluation, and data systems | • Integration of cross-sector data and indicators into common systems<br>• Cross-sector evaluation (e.g., inclusion of health indictors in non–health program evaluation)<br>• Research or evaluation of the impact of "non–health" policies on health<br>• Validation of health performance measures |
| 6. Synchronizing communications and messaging | • Framing activities in terms of interconnectedness between sectors or the potential for multiple sectors to benefit<br>• Common messages across sectors<br>• Shared platforms (newsletter, Web site, or database) for cross-sector success stories or innovative practices<br>• Intersectoral commitment statements (e.g., integration into vision/mission) |
| 7. Implementing accountability structures | • Shared objectives or performance measures with health implications<br>• Cross-sector monitoring and enforcement of existing laws<br>• Oversight or management structures<br>• Established roles for systematic consideration of health criteria<br>• Cross-cutting budget spending reviews Mandatory or voluntary policies Public reporting |