Support Healthy Families
Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #9: Support Healthy Families envisioned how to provide all families with healthy, clean, and supportive environments. Achieving a healthy environment means ensuring that the youngest among us are healthy and educated, that the oldest among us are cared for, and that both groups and everyone in between has access to good food, open space, and high quality health care.

The Obama Administration’s 2010 Affordable Care Act (ACA) required community health needs assessments (CHNA) and implementation strategies to be developed by tax-exempt hospitals. These assessments and strategies create an important opportunity to improve the health of communities. On the state level, a number of grants funded positive health and safety outcomes. Mass in Motion and Safe Routes to School funded local interventions for healthy eating and active living. Significant federal investments in early education expanded Pre-K availability, but more is needed. Statewide coalitions built local food plans and are beginning to implement them through the newly-funded Massachusetts Food Trust. Many municipalities bolstered local food access by opening farmers markets, which have more than doubled in the region in the past ten years.

Regionally, municipalities worked together to create dozens of elder housing villages and to host age-friendly programming. Nonprofit organizations and universities established many successful education interventions that target out-of-school/out-of-work youth. Municipalities began integrating health elements into planning documents ranging from master plans to climate resilience plans. MAPC formed a Public Health Department to integrate public health perspectives into regional planning. Mass in Motion incentivized collaboration between municipalities, boards of health, and planning boards to encourage healthier lifestyles for their constituents.

Early education is an important aspect of setting children on the path to a healthy life. While some individual municipalities strongly support early education, a statewide commitment to early education is still missing. Municipalities, particularly Boston, enacted a variety of educational interventions to support children, including efforts to add healthy food options at school.
An emerging perspective that MetroFuture did not fully acknowledge is the impact of social determinants on health outcomes. Poor health can stem from unpredictable or low quality housing conditions, violence inside and outside the home, pollution, etc. In the next regional plan, it will be important to link health outcomes to these social factors. Recent changes to the Attorney General’s Community Benefit program moves some of the dollars from free programming towards addressing social determinants of health. Experts often advocate for a longer term, systemic approaches as the only way to truly improve health in the United States.

Sub-Strategy Review

Sub-Strategy A: Link health and planning

EXAMPLES OF PROGRESS

- Cities and towns are incorporating health outcomes into planning documents. Wellesley, Hudson, Middleton Master Plans and the plan for Medford Square featured health, as did the South Salem transit-oriented development plan.

- Coordination between Boards of Health, Health Departments, and Planning Departments as part of Mass in Motion built programs to improve healthy eating and physical activity, which MAPC helped facilitate.

- CAFEH, the Community Assessment of Freeway Exposure and Health Study, serves as the larger umbrella for five related community-based participatory research (CBPR) air pollution studies. These projects have full participation of the community partners in all aspects of the science including: developing the proposal, leading the study, and collecting, analyzing and interpreting the data.

- Mass Safe Routes to School data and safe routes to school planning tool help link active transportation planning with children’s health and safety.

- MAPC formed a Public Health Department with goal of integrating public health into regional planning to increase access to open space, healthy food, and active transportation, to sustain violence-free communities with safe and stable housing, to support equal access to health services, and to limit exposures to pollution and environmental contaminants.

- The Obama Administration’s 2010 Affordable Care Act (ACA) required community health needs assessments (CHNA) and implementation strategies to be developed by tax-exempt hospitals. These assessments and strategies create an important opportunity to improve the health of communities. They ensure that hospitals have the information they need to provide community benefits that meet the needs of their communities. They also provide an opportunity to improve coordination of hospital community benefits with other efforts to improve community health. While the Attorney General in MA had guidance around CHNAs, this change formalized the process.
• The ACA funded [Community Transformation Grants](#), one of which was awarded to MAPC and the Massachusetts Department of Public Health for Middlesex County. Middlesex County will use the $1.57m grant to prevent chronic disease such as heart attack, stroke, and other leading causes of death and disability through evidence-based policy, environmental, programmatic, and infrastructure changes that support healthy living.

• The [Inner Core Community Health Improvement Coalition](#) (ICCHIC) unites seven municipal coalitions to address unhealthy diets within Boston's Inner Core region by improving access to healthy food. ICCHIC seeks to strengthen distribution networks to support healthy food retail initiatives and work with grocery stores to offer and promote healthy foods.
  - Housing Productions Plans in [Millis](#), [Arlington](#), and [Rockland](#).
  - The [Revere Open Space and Recreation Plan](#) (OSRP).
  - The Everett OSRP (food planning/food systems).
  - Climate resilience plans (e.g. the MAGIC Climate Change Resilience Plan) to address potential environmental health risks from rising temperatures, increasing precipitation, and disease vectors (e.g., mosquitos).

• As of 2011, the Public Health Accreditation Board (PHAB) requires Community Health Assessments (CHAs) for public health departments seeking national accreditation. Similarly, in 2014, the IRS mandated that nonprofit health centers must conduct Community Health Needs Assessments (CHNAs) every three years. Since 2012, over 60 CHAs/CHNAs were conducted across the region on a neighborhood, municipality, regional, and state level. Many of these assessments include Community Health Improvement Plans (CHIPs) guide community benefit investments for these communities.

**BARRIERS TO PROGRESS:**

• Some planning staff and public health departments lack awareness and/or understanding about health connections to planning and vice versa.

• Planning departments are not funded or required to incorporate health elements into their planning processes.

• There is no mandate for broader involvement of local health department staff and board members in planning and permitting decisions.

• Lack of awareness of science and evidence linking planning actions to outcomes (e.g., transportation impacts on health behaviors and outcomes).

• Abbreviated project timelines and budget make adding an additional perspective, such as health or addressing the impacts of climate change, difficult.

• There is a severe lack of local health data available for use in planning and decision making.
The standard format for plans set by the state (e.g., the required elements of OSRPs) does not include health sections.

**Sub-Strategy B: Broaden universal early education and care**

**EXAMPLES OF PROGRESS:**

- The state legislature has increased the budget for early education and care every year since 2013, the historic low point during the Great Recession.
- In 2014, the U.S. Department of Education awarded Massachusetts a four year Preschool Expansion Grant for $15m per year (the maximum amount). The program funds a free year of high quality preschool for 850 4-year old children in the state.
- In 2017 the Baker-Polito Administration, in collaboration with the Legislature, announced $46 million in funding awards to multiple initiatives that support the quality and availability of early education and care programs serving young children across the Commonwealth. This was in addition to a 6 percent pay rate increase, worth more than $28 million, for all early education and care programs that provide care for low-income families. Rate increases support salaries of early educators working in subsidized programs. The 2017 funding represents the largest rate hike for subsidized early education and care programs in 10 years.
- In 2012, the Patrick-Murray administration signed into law, An Act Relative to Third Grade Reading Proficiency, which focuses state attention and resources on children's language and literacy development. Despite leading the nation on national assessments, Massachusetts has a large and persistent achievement gap.
- In 2010 the Board of Early Education and Care (EEC) adopted the Quality Rating and Improvement System (QRIS) to measure the factors that experts believe make the difference between programs that work for children and those that do not. EEC is currently updating QRIS standards based on results of a validation study and feedback from programs.
- Experts report that the most innovative early education work is happening at the local level. For example, Boston K1DS is a mixed provider approach to pre-K. Children attend public schools as well as private schools, but teachers must have certain salaries and qualifications, and receive coaching tied to a curriculum. Studies found this structure resulted in huge gains in school readiness both in math and reading.
BARRIERS TO PROGRESS:

- The early childhood field suffers from low teacher pay and high turnover, which makes it difficult to attract and retain the most qualified individuals.

- Unlike K-12, funding for early education is based primarily on high parent fees and federal child care funding for low-income or priority populations (i.e. DCF-involved children). There is insufficient funding in the system to meet access demands and quality expectations.

- The state does not fund early childhood education in accordance with the impact it has on the region. Funds have disproportionally gone to primary/secondary and higher education. The state must allocate more resources to improve the quality and quantity of early education opportunities, ideally through new flexible funding streams.

RELEVANT INDICATORS1:

- A high-quality early education is often characterized by personalized and individualized approaches; access to quality early education, especially for at risk students, makes it more likely that our youngest learners will have a solid foundation for academic and social-emotional development. 55% of children aged 0-5 and eligible for a subsidy were enrolled in high-quality early education programs, down 2% from 20152.

- In Massachusetts, a community based early education teacher earns on average $29,020 per year. A kindergarten teacher in Massachusetts, by comparison, draws an average salary of $71,790 per year. This gap indicates that the majority of early educators do not receive a livable wage. Although data on turnover in the early education field is not up to date, experts estimate that 30% of early educators leave their position in a calendar year.3

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1 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
3 https://www.barrfoundation.org/blog/five-lessons-from-two-decades-of-early-education-grantmaking
Sub-Strategy C: Improve access to after-school and out-of-school programs

EXAMPLES OF PROGRESS:

• Boston After School and Beyond is an umbrella organization that coordinates with Community Based Organizations that provide after school programs where children can earn skill badges in college and career readiness.

• In 2016, Harvard's Education Redesign Lab launched “By All Means: Redesigning Education to Restore Opportunity”, aimed at developing comprehensive child wellbeing and education systems that help eliminate the link between children's socioeconomic status in Salem, Somerville, and Newton (as well as three other communities nationwide). This connects mayors, superintendents, heads of health and social services, recreation, cultural and arts activists, and other key community leaders to deliver better outcomes for children and youth.

• “Photovoice” projects were conducted in eight municipalities as part of the Middlesex County Community Transformation grant; this approach embodied a community based participatory research element, that in some cases was linked with place-making, as part of intervention aimed at youth social and emotional wellness.

BARRIERS TO PROGRESS:

• While some success examples exist at the municipal level, there was limited regional and state investment in after-school and out-of-school programs.

• School district priorities often do not support expansion of out-of-school programs

Sub-Strategy D: Use school-based programs to help children establish healthy lifestyles

EXAMPLES OF PROGRESS:

• Mass in Motion, which began in 2009 and has administered over $600,000 in grants, promotes healthy eating options by setting policy standards for competitive food and beverage contracts in schools in 2010. Community use agreements through Mass in Motion established safer playgrounds, parks, and outdoor spaces in more than 170 communities.

• Work under the MA Local Food Action Plan addressed school-based food programs, including goals for farm-to-institution programming and gardening and nutrition curriculum with schools. MAPC manages the contract for over 10 school districts to assist in joint procurement of fruits, vegetables, and mushroom beef burgers for farm-to-school purchasing.
• MAPC conducted a Health Impact Assessment (HIA) with the Massachusetts School Building Authority (MSBA) focused on school reconstruction at Plymouth South High School

• More funding for Safe Routes to School, was established in 2012 with the Transportation Alternatives Program administered by the Federal Highway Safety Administration. The program works with school communities, law enforcement, and public health departments to increase biking and walking among elementary and middle school students

BARRIERS TO PROGRESS:

• Not enough agencies are approaching this topic from a social determinants of health perspective, which targets the root structures and systems that create inequities, overlapping social and economic structures.

• The failure to address or account for the influence of environmental changes on behaviors, outcomes, and educational status.

RELEVANT INDICATORS:

• In Massachusetts, obesity rates declined among 2- to 4-year-olds enrolled in WIC from 2010 to 2014 dropping from 17.1% to 16.6%. However, rates in Massachusetts remain among the highest in the nation.

Sub-Strategy E: Ensure access to healthy food

EXAMPLES OF PROGRESS:

• The Massachusetts Food Policy Council commissioned MAPC and partners to create the Mass Local Food Action Plan to build a more sustainable and equitable food system. Upon completion of the Plan, the Massachusetts Food System Collaborative was established, and is coordinating implementation of recommendations in the Plan.

• The Massachusetts Food Trust is working to ensure better access to healthy food and has been funded this state fiscal year (2018) for the first time to provide financial and technical assistance to support new and expanded healthy and local food retailers in low and moderate income communities, improving food options and economic development in underserved communities.

4 The Center for Disease Control defines social determinants of health as "the complex, integrated, and overlapping social structures and systems that are responsible for most health inequities. These social structures and economic systems include the social environment, physical environment, health services, and structural and societal factors."
Mass in Motion support (through the Community Transformation grant) and grants from the American Planning Association and American Public Health Association worked to increase healthy food access in our region, especially through healthier offerings at corner stores and markets. Within the region, Cambridge, Everett, Melrose, New Bedford, Plymouth, and Wakefield established Mass in Motion "Healthy Markets and Corner Stores."

The number of farmers' markets throughout the region has increased to over 100, reflecting a 200% increase in farmers markets statewide.

Chelsea became the first city in the country to ban artificial trans fats, which increase the risk of Type 2 diabetes, heart attack, and stroke, in 2015.

MAPC helped expand availability of EBT machines at farmers markets

**BARRIERS TO PROGRESS:**

- Funding for healthy food access programs is limited.
- MAPC and the Department of Transitional Assistance partnered on the Healthy Incentives Program (HIP) financial matching for Supplemental Nutrition Assistance Program (SNAP) purchases, but the program was suspended until further notice in 2018.
- Many of these interventions impact the environment and we lack evidence that shows how these environmental changes will result in behavior change.
- Healthy food is a difficult change to make and sustain with local small businesses; the connection with local economic development needs to be built out to strengthen efforts and partnerships and increase involvement. An implementation-ready framework for a small business association for independent grocers was developed and received seed funding (in Beverly and Revere) with APHA funds to promote healthy food access, but the grant ended without the opportunity for implementation.

**RELEVANT INDICATORS:**

- On a statewide level, the model of food access in Massachusetts highlights the general dependence people have on cars as a means of assessing food retailers. Within a ¼ mile walkshed, no community types reached an average food access score of over 3.55. In fact, the average of the 4,979 block groups was 1.9 out of 15. At this same network distance, over 50 percent of block groups had food access scores of 0, illustrating that on the statewide level, people generally do not live within ¼ mile of food retailers. Increasing the walkshed to ½ mile increases average food access scores to 4 for the state; however, this score is still very low – under no circumstance would this score allow for access to a large grocery store, and about 33 percent of block groups had food access scores of 0 at this distance.

5 Very high (12-15) index scores indicate guaranteed access to at least one large-scale grocery store or supercenter within the specified network distance. Very low (0-3) index scores indicate guaranteed lack of access to a grocery store of any scale. Low (3-6) index scores indicate likely access to a smaller-scale grocery store, farmers market, or fruit and vegetable market. Moderate (6-9) and high (9-12) index scores indicate increasing likelihood of access to a large scale grocery store or super center.
On behalf of 10 school districts, MAPC manages a produce contract with distributor A. Russo and Sons, supporting school food directors and helping to streamline purchasing (see figure 5). Our contract helps schools source more local produce, through Russo’s partnerships with farms across Massachusetts and New England. These efforts support the health and academic performance of nearly 50,000 students enrolled in participating schools, including more than 12,000...
economically disadvantaged students who qualify for free meals. The schools’ purchases also support the New England farm and food economy and encourage sustainable practices throughout the food supply chain.

Figure 6: Massachusetts Farm to School Program Map 2017

Sub-strategy F: Reduce exposure to environmental contaminants

EXAMPLES OF PROGRESS:

- MAPC worked the MA Department of Housing and Community Development (DHCD), along with other partners, to promulgate a statewide policy that has resulted in more and more local housing authorities (LHAs) to go smoke-free, such as Boston in 2014. In 2016, the U.S. Department of Housing and Urban Development declared that all public housing in the country must become smoke-free within 18 months.

- MAPC partnered with the Prevention and Wellness Trust Fund (PWTF) to provide smoking cessation resources in relation to smoke-free LHAs.
Chelsea (along with Cambridge and Everett) won the Robert Wood Johnson Foundation’s Culture of Health prize in 2016 for their work reducing diesel pollution, cleaning up waterfront access along Island End River, and working with youth to engage the community on environmental health issues and develop environmental justice curriculum for Chelsea schools.

Environmental contaminant exposure reduction was addressed in Plymouth South High School school-building HIA.

The Massachusetts Municipal Stormwater Separated Sewer (MS4) program, established in 2015, encourages more groundwater filtration to reduce exposure to fecal coliform and other contaminants, improving water quality.

MAPC partnered with the Community Assessment of Freeway Exposure and Health (CAFEH) team at Tufts University to address exposure to near roadway traffic pollution, analyze potential zoning changes, identify populations at risk, and link them to interventions. MAPC also engaged in HIAs regarding traffic and accompanying pollution changes in the vicinity of the I-93 corridor in Somerville and Boston’s Chinatown.

**BARRIERS TO PROGRESS:**

- Funding for environmental contaminant remediation and reduction is insufficient.
- Availability of local health data is limited.
- The lack of developable land in the Metro Boston area may lead to new development sites that have known or unknown contaminant issues.
- The LHA smoking ban is not a mandate only an encouraged policy.

**RELEVANT INDICATORS:**

- Asthma is very sensitive to environmental factors, such as air quality. How well a parent or guardian is able to manage symptoms and seek treatment for their child is dependent on their access to healthcare. Within the region, the youth asthma hospitalization rate has increased by 22 hospitalizations per 100,000 from 2003-2007 to 2008-2012.

- This uptick in youth asthma hospitalization rate is driven by significant increases in the Black and Latino rates. Both the Black and Latino youth asthma hospitalization rates are above the regional average. The youth asthma hospitalization rate for the Black population is highest and has risen to 614 hospitalizations per 100,000, while the Latino rate is currently at 387 hospitalizations per 100,000. The gaps between the Black and White youth asthma hospitalization rate and the Latino and White youth asthma hospitalization rates have increased by 42 hospitalizations per 100,000 and 62 hospitalizations per 100,000 respectively.
• Overall, MAPC region’s average annual rate of childhood lead poisonings fell from 5.06% in 2006-2010 to 1.92% in 2011-2015. There were significant decreases in the prevalence of blood lead levels, however disparities still persist geographically and racially.

• From 2005-2009 to 2010-2014, the rate of low birth weight1 (among singleton, or non-multiple births) has remained relatively constant at 5.4% in 2005-2009 and 5.3% in 2010-2014. The percentage of White low birth weight births were below average and experienced a slight 0.1 percentage point decrease, while the share of Black low birth weight babies remains the highest of all race/ethnicity groups. Despite, having the largest share of low birth weight babies, the Black population saw the greatest percentage point drop in low birth weights from 9.8% in 2005-2009 to 8.8% in 2010-2014. Black and Latino populations experienced a decrease in low birth weight births across all educational attainment levels during this timeframe. However, the White population as a whole experienced a decrease in low birth weight births, White mothers with less than a high school education experienced the greatest percentage point increase in low birth weight from 7.1% in 2005-2009 to 8.1% in 2010-2014.

Figure 9: Low birth weight by mother’s race and ethnicity and educational attainment (singleton births only) in MAPC Region (Source: http://www.regionalindicators.org/topic_areas/7#children-low-birth-weight)
Sub-strategy G: Ensure equitable access to quality health care

EXAMPLES OF PROGRESS:

- The Attorney General's Community Benefit Guidelines for Non Profit Acute Care Hospitals and Community Benefit Guidelines for Health Maintenance Organizations took effect in October 2009. These updated guidelines reflected the increasing financial burden of accessing quality health care and the growing role of Health Management Organizations in providing health care.

- MAPC worked on a Prevention and Wellness Trust Fund project in Lynn and MetroWest to expand access to health care. MAPC connected state and local health departments, health care centers, and community organizations (community-clinical connections) to provide shared services to communities and healthcare access.

- MAPC helped more municipalities become part of the General Insurance Committee which gave municipal workers better and less expensive health benefits

BARRIERS TO PROGRESS:

- Consolidation within the health care system, e.g., closing of hospitals and health centers.

- Federal health care policies and funding (e.g., funding for Medicaid).

RELEVANT INDICATORS:

- Residents of Metro Boston have been insured at 95% or more since at least 2008 (when data is earliest available). Between 2008 and 2013, Metro Boston's health insured rate was ten percentage points higher than the national average. Starting in 2010, Metro Boston's insured rate began slowly to increase, so that between 2010 and 2015 the rate had increased two percentage points to 97%. In the nation, the rate rose very slowly starting in 2010, and then in 2013 jumped up from 85% so that by 2015 91% of Americans were insured.

Figure 9: Health Insurance Coverage in Metro Boston and the US

Data Source: American Community Survey 1-Year Estimates
Sub-strategy H: Coordinate policies to create an elder-friendly region

EXAMPLES OF PROGRESS:

- There are now sixteen elder-friendly “Villages” in Massachusetts, providing assistance in living, referral services, and community events for seniors. Since 2008, the MAPC municipalities of Brookline, Cambridge, Bedford, Newburyport, Jamaica Plain in Boston, Newton, Reading, and Wellesley established elder villages, with many of these open to residents of surrounding municipalities.\(^6\)

- Housing Production Plans for Hudson and Needham looked specifically at creating housing that is more accessible to older residents.

- MAPC completed an Age Friendly Trails project in Natick to ensure trail access to elderly residents.

- In 2016, Hudson, Marlborough, and Northborough received a collective $20,000 grant to support residents with dementia by training citizens on the best ways to interact with those with dementia, building dementia-friendly social spaces, and making public transportation easier to use\(^7\).

- Brookline and Boston were accepted into the World Health Organization Age-Friendly Cities and Towns network. In addition to social programs designed for those with dementia through local nonprofits and centers in Brookline, the police department offers tracking bracelets for people with dementia, and the town opened its own memory cafés. MAPC worked with the MAGIC subregion to submit a proposal for “Age Friendly” designation for the subregion.

BARRIERS TO PROGRESS:

- Availability of affordable and appropriate housing for seniors in the region is limited and unaffordable to many.

- Funding for age-friendly projects is limited.

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\(^7\) https://www.mma.org/metrowest-communities-boost-services-those-dementia-0
RELEVANT INDICATORS:

- As the Baby Boomer generation ages, the region will experience substantial growth in the senior population, which may grow by 75% between 2010 and 2030. Above-average premature mortality rates for White and Black residents declined between 2003-2007 and 2008-2012, while rates for Asian, Latino, and Native American residents remained statistically unchanged. Black residents continue to have the highest premature mortality rate (348 per 100,000.) Grandparents responsible for their grandchildren have a poverty rate of more than 15%, double that of grandparents not responsible for their grandchildren. Older adults are more housing cost burdened (meaning that they pay more than 30% of their income on housing) than younger adults. Nearly 60% of renter households headed by an older adult are cost burdened, and more than a third of households where the homeowner is an older adult are cost burdened. Despite a 5% drop in the total number of housing cost burdened young homeowners, the renter and owner housing cost burden rates for the elderly remained unchanged between 2005-2009 and 2011-2015.

- Approximately 9.8% of the region’s older adults live in poverty (see Figure 10), just below the regional poverty rate. Between 2005-09 and 2011-15 there has been no significant change in the percentage of older adults living in poverty throughout the region. Even if this poverty rate for older adults holds steady, the substantial growth in the older adult population in the coming decades (projected to grow 75% from 2010 to 2030) will result in a much larger number of older adults in poverty.

Emergent Themes

- Social determinants of health have an outsized effect on long-term health incomes and interventions need to be developed as early in life as possible. They are also widely recognized as an important driver of positive educational outcomes.

- The healthcare system is getting increasingly complex and expensive. Expanding access to healthcare must include both the social determinants of health and an understanding of the changes in the healthcare landscape.

- In early education, the mixed provider system is taking root statewide, particularly via the Preschool Expansion Grant and additional 13 preschool planning communities. Mixed-provider local work features district and private, community-based programs working side-by-side.

- MAPC is exploring the re-establishment of the State Health Disparities Council.