



2022–2026 Strategic Plan for Asthma in Massachusetts



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HOUSING

Goal: Advance access to safe, healthy, stable and affordable housing in Massachusetts to address asthma inequities



SCHOOLS

Goal: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices.



COMMUNITY & CLINICAL COORDINATION

Goal: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



OUTDOOR AIR QUALITY

Goal: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.

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ABOUT THIS DOCUMENT

The **2022–2026 Strategic Plan for Asthma in Massachusetts** is the result of a comprehensive planning process undertaken by the Massachusetts Department of Health (MDPH) Asthma Prevention and Control Program (APCP) in collaboration with the Massachusetts Asthma Action Partnership (MAAP), asthma partners, stakeholders, and thought leaders across Massachusetts. The goals, objectives, and strategies outlined below are based on the collective knowledge and expertise of the participants of the planning process regarding what is needed and achievable to address the inequitable burden of asthma in Massachusetts.

Purpose of the Strategic Plan

The **2022–2026 Strategic Plan for Asthma in Massachusetts** is meant to highlight opportunities for cross-collaboration and collective impact in how programs and organizations address asthma, specifically the inequitable burden of asthma across the Commonwealth of Massachusetts. This plan is not a comprehensive representation of all asthma prevention and control work in Massachusetts, but offers a foundation and guidance for what has been lifted up by a broad group of partners and stakeholders as an equitable path forward. This plan was developed to meet the following needs:

- To help set priorities for MDPH Asthma Prevention and Control Program
- To help set priorities for MAAP
- To provide unified direction and ideas to stakeholders working on programs, policies, etc. related to asthma

- To highlight opportunities to address racial and health inequities — with a focus on 11 communities experiencing the greatest inequities in asthma burden.

Funding

This strategic plan was supported by funding from the Centers for Disease Control and Prevention (CDC) A Comprehensive Public Health Approach to Asthma Control Through Evidence-Based Interventions CDC-RFA-EH19-1902CONT21. Its contents are solely the responsibility of the authors and do not represent the official views of the CDC.

All advocacy activities listed below will not be conducted by MA DPH or any partner organizations using state and/or federal funding.

Massachusetts Department of Public Health's Asthma Prevention and Control Program

The Massachusetts Department of Public Health (MDPH), Asthma Prevention and Control Program (APCP) is located within the Bureau of Community Health and Prevention. The APCP works in close collaboration with other internal DPH programs, state agencies, and community partners, particularly the Massachusetts Asthma Action Partnership (MAAP) the statewide asthma coalition in Massachusetts.

The work of the APCP includes a wide range of public health activities that support the vision and mission of the program, including:

- Conducting asthma surveillance

- Fostering statewide and regional partnerships
- Promoting guidelines-based care
- Sustaining and evaluating effective interventions to reduce asthma disparities in Massachusetts
- Promoting safe and healthy homes
- Supporting asthma friendly schools
- Providing equitable workforce training and professional development,
- Promoting policies that improve asthma outcomes,
- Supporting healthy outdoor air quality, advancing the primary prevention of asthma,
- Promoting tobacco cessation and reducing exposure to secondhand tobacco smoke.



Vision

The Massachusetts Asthma Prevention and Control Program (APCP) envisions a Commonwealth where systems of structural racism and oppression have been dismantled and communities of color have the same opportunities, especially for individuals living with asthma, to lead full and active lives free from inequitable disease burden. Where principles of primary prevention of asthma are elevated and embraced and the root causes of inequities in asthma outcomes have been eliminated.



Mission

The mission of the Asthma Prevention and Control Program is to eliminate inequities in asthma outcomes and reduce the overall burden of asthma across the Commonwealth. Elevating evidence based best practices to build capacity and foster collaboration for the prevention and management of asthma, with a focus on the root causes of asthma inequities that result from systemic and structural racism.

Massachusetts Asthma Action Partnership

The Massachusetts Asthma Action Partnership's (MAAP) mission is to reduce the impact of asthma with an emphasis on health equity, particularly in communities of color and economically disadvantaged communities. MAAP coordinates statewide strategies and amplifies partners' efforts for the prevention and management of asthma, with a focus on addressing social and environmental root causes. MAAP is a program of Health Resources in Action (HRiA) that was established in 2009 with support from the MA Department of Public Health. MAAP is the only statewide asthma partnership that links local efforts across the state and brings together a diverse group of stakeholders to achieve sustainable statewide changes in the environment, education, and quality of health care as they relate to asthma.



Massachusetts
Asthma Action Partnership

Leading with Race and Racism Framework

The history of structural racism — the public policies, institutional practices, and social norms that together maintain racial hierarchies — and its impact across the country, and within the Commonwealth of Massachusetts is often overlooked or unacknowledged, yet it is pervasive and unmistakably harmful to everyone. These historic and ongoing policies of racial segregation and disinvestment have led to vast health inequities, including in exposures to asthma risk factors such as poor housing quality, environmental tobacco smoke, poor air quality, and access to quality health care services.

Significant inequities in asthma outcomes persist within Massachusetts, with **rates of asthma-associated hospitalization and emergency department visits for Black non-Hispanic and Hispanic residents three to four times higher than those of White non-Hispanic residents.**

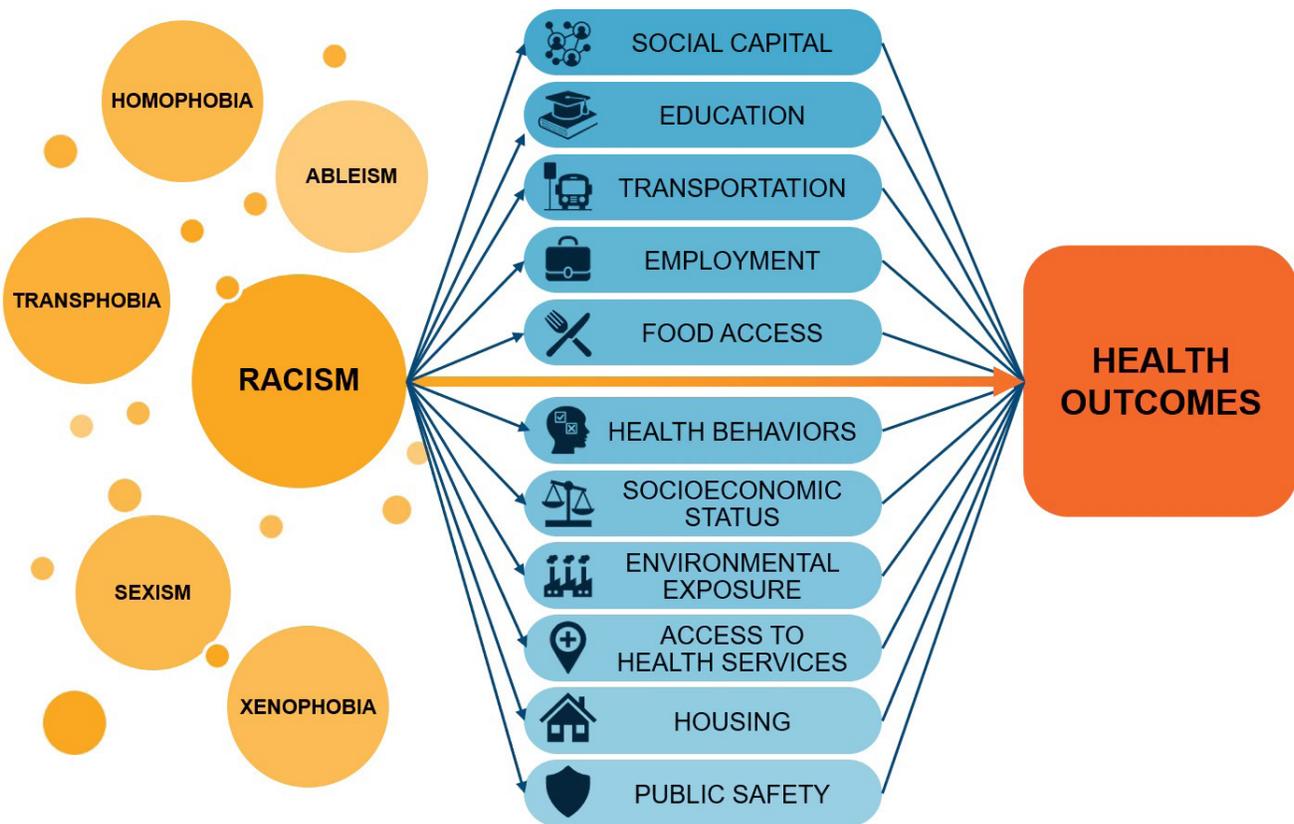
Acknowledging that these inequities in asthma outcomes are driven by structural racism and social determinants of health, the **2022–2026 Strategic Plan for Asthma in Massachusetts** strives to address these inequities through a framework of **leading with race and racism explicitly** but not exclusively. By leading with race and racism we are acknowledging that systems failing our residents of color who are most burdened by asthma are failing all residents, and we can work towards improving the health of Massachusetts as a whole.

Racism is an independent factor in health outcomes, and influence across the social determinants of health. The circumstances in which people are born, grow, live, work, play, and age that influence access to resources and opportunities that promote and support health. The social determinants of health include housing, education, employment, environmental exposure, health care, public safety, food access, income, health, and social services. In this report, SDOH are described as social, environmental, and economic conditions. For more information, visit: <https://www.mass.gov/info-details/health-equity>.

The inequities that racism continues to cultivate in housing policies (e.g., redlining), environmental exposures (e.g., discriminatory industrial zoning), our education system, throughout the health care system and beyond are felt across generations, most acutely in communities of color.¹

The goals, objectives, and strategies outlined were crafted by the APCP in collaboration with MAAP, asthma partners, stakeholders, and thought leaders across Massachusetts through this framework **of leading with race and racism explicitly but not exclusively** to address the inequitable burden of asthma in Massachusetts.

Figure 1: Social Determinants of Health



Data Source: Boston Public Health Commission's Racial Justice and Health Equity Initiative.



— ASTHMA IN MASSACHUSETTS —

What is Asthma?

Asthma is a chronic inflammatory lung disease that can make it difficult to breathe. Common symptoms of asthma include inflammation and narrowing of the airways of the lungs and excessive mucous production, which can result in wheezing, coughing, and difficulty breathing. Episodes of asthma (acute asthma attacks) can be triggered by common things in the environment such as dust, mold, tobacco smoke or strong smells from chemicals (such as cleaning products). They can also be triggered by exercise, colds, and other respiratory infections.

Asthma affects individuals differently in regards to severity, symptoms, triggers, and responsiveness to treatment. When not adequately treated, asthma can negatively affect an individual's quality of life, interrupt sleep, cause missed days of school or work, and may result in disability or even death. While there is no cure, asthma can be controlled and individuals with asthma can lead active and healthy lives.

Asthma Prevention and Control

It is not clear why some people get asthma, while others do not. However, new evidence on what causes the disease and how it can be prevented is emerging. Researchers have learned that many factors in a person's environment, in combination with their genes (hereditary) can cause asthma. For example, exposure to tobacco smoke, traffic pollution, and some substances that people are exposed to at work, such as formaldehyde, epoxy, isocyanates, diesel exhaust, and other chemicals can cause or worsen asthma. Some communities have higher rates of exposure to environmental risk factors due to the direct influence of structural racism and the Social Determinants of Health (**Figure 1**), evidenced by the inequities that can be seen in housing policies, environmental exposures, the health care system and beyond. These inequities are felt across generations, most acutely in communities of color.ⁱ



Although there is no cure for asthma, eliminating or reducing exposures to these risk factors can help to control symptoms from worsening, or prevent asthma from ever developing. Acknowledging the systems and structures that have led to inequitable control of symptoms and asthma outcomes is an important step to addressing these systematic barriers. People with asthma can live healthy and active lives when their asthma is controlled. Well-controlled asthma includes following an Asthma Action Plan developed with a health care provider, maintaining prescribed medication use and avoiding or eliminating asthma triggers.

Inequities in Asthma Burden in Massachusetts

Despite high rankings in overall population health, Massachusetts, like many other New England States, has a high prevalence of asthma compared to [national rates](#). In 2019, 10.3% of adults and 9.5% of children in MA were currently living with asthma compared to 9.0% of adults and 7.4% of children nationally.^{ii, iii} Among those living with asthma in Massachusetts, significant disparities in asthma outcomes by race/ethnicity continue to persist.

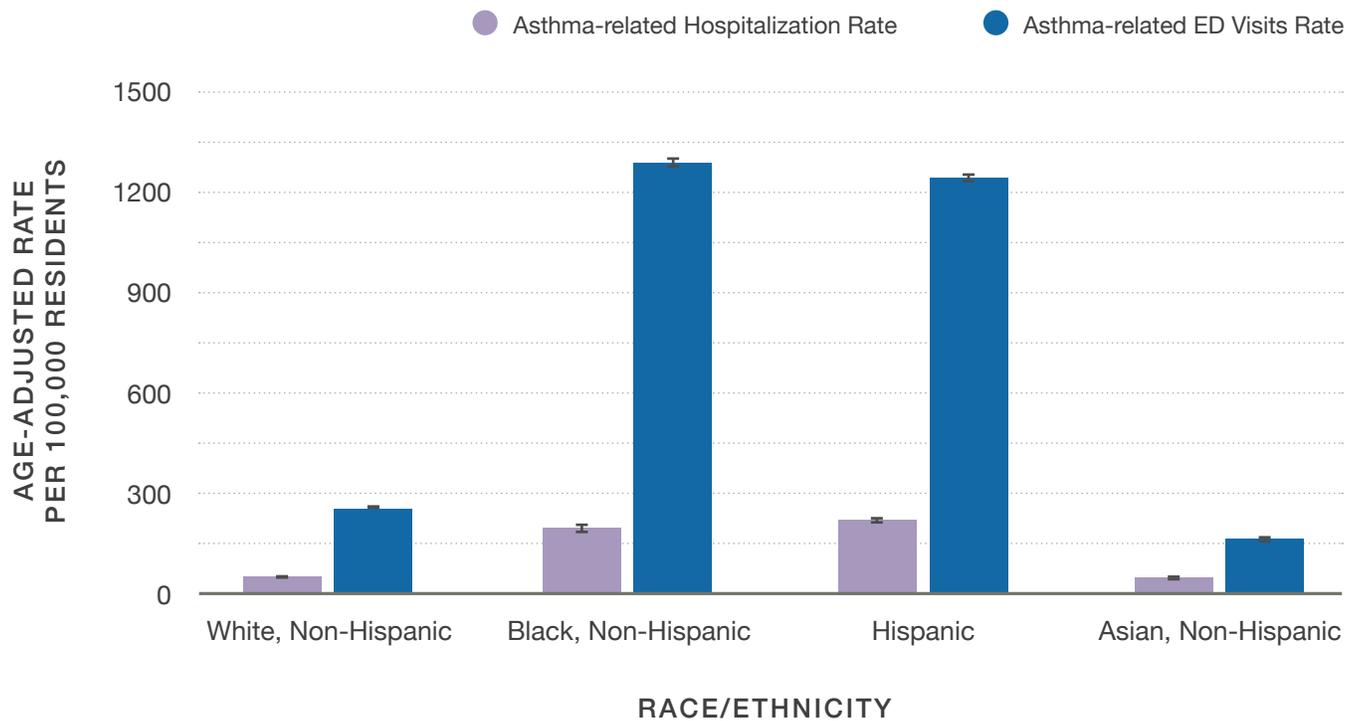
When disaggregated by race, there is no statistical difference in the prevalence of asthma for adults in Massachusetts by race/ethnicity. These similarities across racial/ethnic populations further underscores the inequities seen in asthma outcomes where data shows that **rates of asthma related hospitalization and emergency department visits for Black non-Hispanic and Hispanic residents are three to four times higher than those of White non-Hispanic residents.**^{iv}

Environmental justice (EJ) is based on the principle that all people have the right to be protected from environmental pollution and to live in and enjoy a clean, healthy environment.^{iv} Various forms of discrimination and racism have created long-standing health inequities for people of color and lower-income individuals. These populations have historically been excluded from meaningful participation in decisions that impact their communities' environmental health. **People of color and people with limited incomes are more likely to live near toxic waste sites, in areas with high air pollution, and in low-quality housing because of the inequitable distribution of high pollution sites.** Structural inequities result in fewer health care providers, limited access to transportation options, and limited access to health information in the community due to inaccessible health communications and lack of access for non-English speakers. (<https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html>)

Once again, inequities that racism continues to cultivate in housing policies, environmental exposures, our education system, throughout the health care system and beyond are felt across generations, most acutely in communities of color. These inequities have led to a lack of conditions conducive to the management of asthma, interfering with adults and children with asthma living healthy lives.

In Massachusetts, most adults (53.9%) and children (63.7%) with asthma were classified as having not well controlled or very poorly controlled asthma on average from 2016–2019.^v Beyond this, from 2016–2019, close to half (45.3%) of children with current asthma reported being unable to go to school or daycare for at least one day during the past twelve months due to asthma.^v

CY2019 Age-adjusted Asthma-related Hospital Services Rate



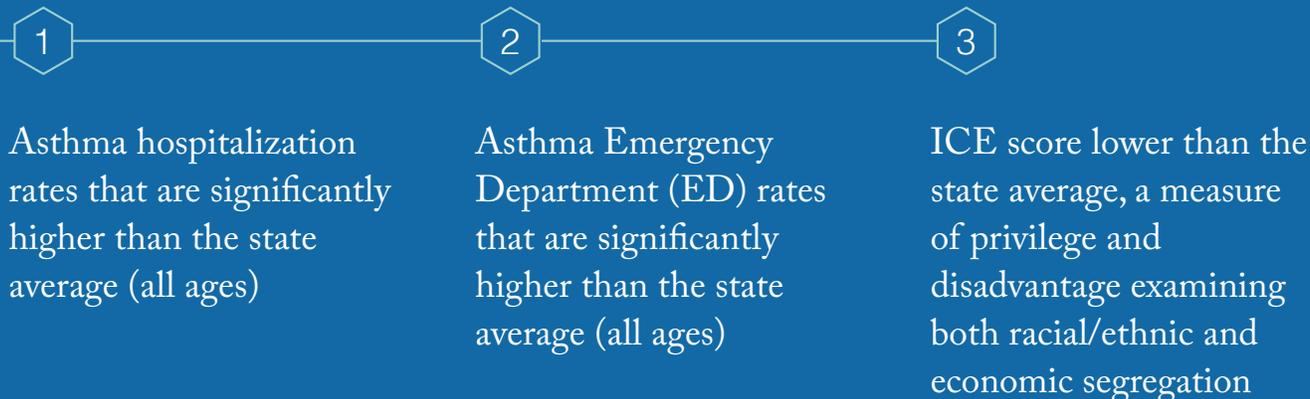
Data Sources: CY2019 Massachusetts Hospitalizations Discharge Database, Massachusetts Center for Health Information and Analysis (CHIA)

Framework for Addressing Inequities in Asthma Burden

Acknowledging the social determinants of health and the broader structural factors that have led to historic disinvestment in communities of color, the **2022–2026 Strategic Plan for Asthma in Massachusetts** strives to address the significant racial disparities in asthma burden that exist in Massachusetts through the leading with race and racism explicitly but not exclusively framework.

It is through this frame that the Asthma Prevention and Control Program, along with the Massachusetts Asthma Action Partnership and the stakeholders engaged in the strategic planning process have made a collective commitment to the center asthma efforts within **11 communities of focus** that have been identified as experiencing the highest burden of asthma inequities in Massachusetts.

The identification of the 11 communities of focus was based on the following indicators of asthma burden:



The 2022–2026 Strategic Plan for Asthma in Massachusetts is also grounded in the principles of environmental justice and equitable distribution of environmental benefits — that all people have a right to be protected from environmental pollution and live in and enjoy a clean environment. It specifically identifies air quality and pollution as asthma triggers that disproportionately exist in underserved communities and affect people of color.

Communities of Focus by Inclusion Criteria

COMMUNITY	ICE SCORE ¹	ASTHMA RELATED HOSPITALIZATION RATE ² (PER 10,000 RESIDENTS)	ASTHMA RELATED ED VISITS RATE ² (PER 10,000 RESIDENTS)
MA AVERAGE	0.2229	8.11	48.57
Boston	0.18837	12.78	76.23
Brockton	-0.08815	16.45	97.08
Chelsea	-0.11766	17.11	71.13
Holyoke	-0.17822	26.95	191.02
Lawrence	-0.27244	17.97	118.51
Lowell	-0.01917	11.97	74.10
Lynn	-0.02611	13.02	76.50
New Bedford	-0.03541	18.41	93.89
Southbridge	-0.04525	18.30	74.71
Springfield	-0.24146	19.77	154.67
Worcester	-0.02574	13.45	77.75

Data Sources:

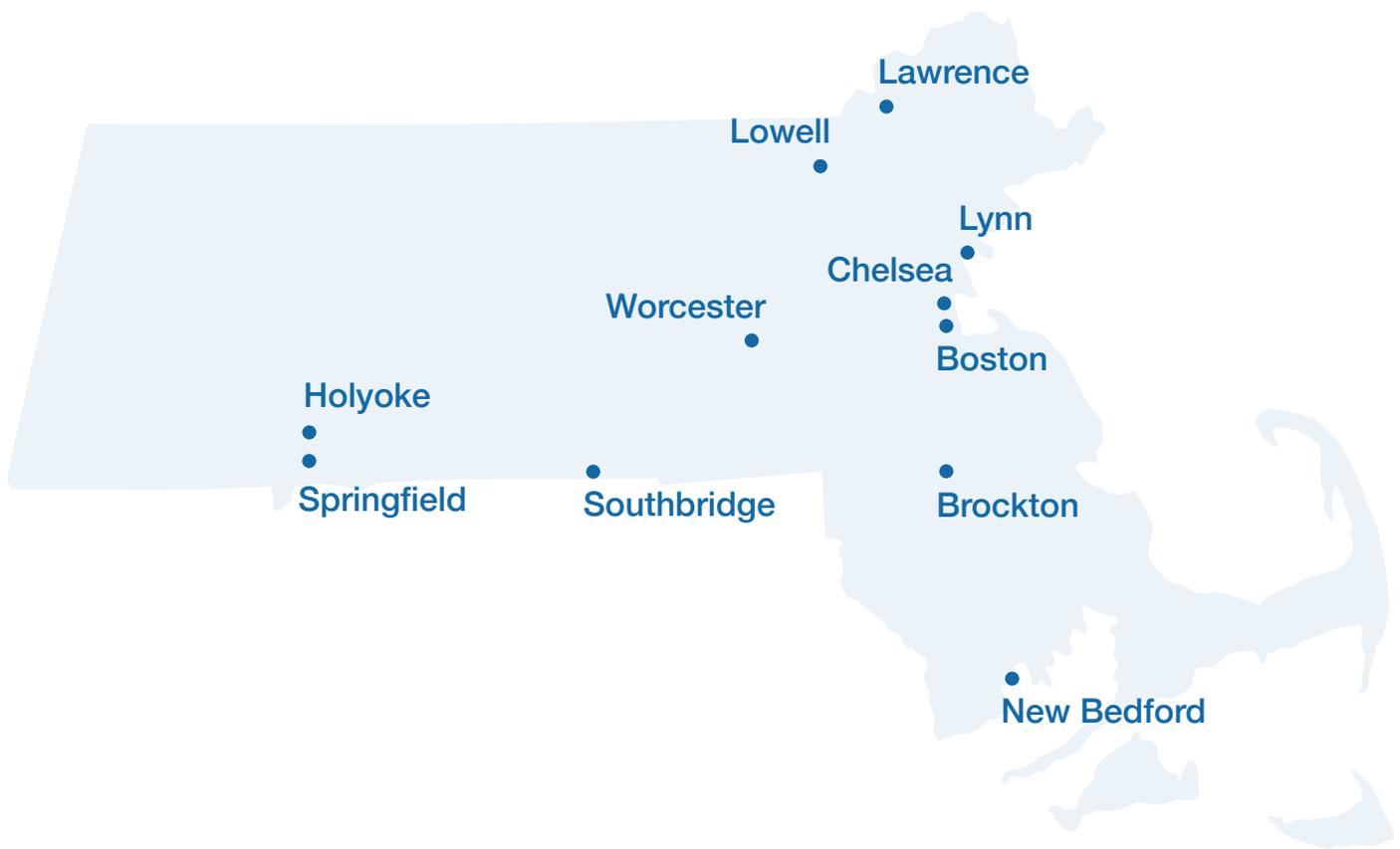
¹ 2010 Census: ICE Score = Index of the Concentration at the Extremes. ICE score compares the concentration of affluence to the concentration of deprivation in a given community.^{vi}

² CY2017-2019 Massachusetts Hospital Discharge Database, Massachusetts Center for Health Information and Analysis^{iv}



11 Communities of Focus

Experiencing the highest burden of asthma inequities in Massachusetts.





THE PLANNING PROCESS

The strategic planning process was facilitated by Health Resources in Action, Inc. (HRiA), a nonprofit, public health consulting firm located in Boston, MA. Due to COVID-19 safety precautions, the entirety of the strategic planning process was conducted virtually.

Partner Engagement

The 2022–2026 Strategic Plan for Asthma in Massachusetts is the result of a comprehensive planning process undertaken by the Massachusetts Department of Health (MDPH) Asthma Prevention and Control Program (APCP) and the Massachusetts Asthma Action Partnership (MAAP) in collaboration with asthma partners, stakeholders and thought leaders across Massachusetts.

Extensive outreach efforts to existing and previously engaged partners, as well as targeted outreach and leveraging networks resulted in the participation of a wide range of stakeholders across the state in the development of the strategic plan.

Through a structured, iterative process, stakeholders for each of the priority areas of Housing, Schools, Clinical & Community Coordination and Outdoor Air Quality developed a set of goals, objectives, and strategies over a series of sessions that formed the foundation of the 2022–2026 Strategic Plan for Asthma in Massachusetts.

The development of the goals, objectives, and strategies of the 2022–2026 Strategic Plan for Asthma in Massachusetts is grounded in the strategies outlined in the [CDC EXHALE](#) technical package for asthma.

EXHALE

	STRATEGY	APPROACH
E	Education on asthma self-management	<ul style="list-style-type: none"> Expanding access to and delivery of asthma self-management education (AS-ME)
X	X-tinguishing smoking and secondhand smoke	<ul style="list-style-type: none"> Reducing tobacco smoking Reducing exposure to secondhand smoke
H	Home visits for trigger reduction and asthma self-management education	<ul style="list-style-type: none"> Expanding access to and delivery of home visits (as needed) for asthma trigger reduction and AS-ME
A	Achievement of guidelines-based medical management	<ul style="list-style-type: none"> Strengthening systems supporting guidelines-based medical care, including appropriate prescribing and use of inhaled corticosteroids Improving access and adherence to asthma medications and devices
L	Linkages and coordination of care across settings	<ul style="list-style-type: none"> Promoting coordinated care for people with asthma
E	Environmental policies or best practices to reduce asthma triggers from indoor, outdoor, and occupational sources	<ul style="list-style-type: none"> Facilitating home energy efficiency, including home weatherization assistance programs Facilitating smokefree policies Facilitating clean diesel school buses Eliminating exposure to asthma triggers in the workplace whenever possible Reducing exposure to asthma triggers in the workplace (if eliminating exposures is not possible)

*Centers for Disease Control and Prevention 2018 “Exhale – A Technical Package to Control Asthma”

STRATEGIC PLAN PRIORITY AREA & GOAL STATEMENTS



HOUSING

Goal: Advance access to safe, healthy, stable and affordable housing in Massachusetts to address asthma inequities.



COMMUNITY & CLINICAL COORDINATION

Goal: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



SCHOOLS

Goal: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices



OUTDOOR AIR QUALITY

Goal: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



Objective 1: Increase the number of smoke-free housing buildings/units available by 2026.

STRATEGY 1: Prioritize providing smoke-free housing training and TA resources to affordable housing providers (i.e., public housing, rental assistance voucher, multifamily subsidized housing, including best practices for adoption, implementation, resident engagement, and enforcement of smoke-free housing policies).

STRATEGY 2: Collaborate with housing partners (i.e., Massachusetts Association of Community Development Corporations (MACDC)) to promote the adoption of smoke-free policies in affordable housing, including rental units and privately owned properties among their membership.

STRATEGY 3: Recommend smoke-free policy requirements for all housing units and buildings receiving Federal and State funding (i.e., Housing Choice Voucher Program, State Public Housing).

STRATEGY 4: Promote and recommend the adoption of smoke-free policies by private property owners and operators.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for United States Department of Housing and Urban Development (HUD) to expand smoke-free policies across all HUD funded housing buildings and units.

STRATEGY 6: Advocate for Department of Housing and Community Development (DHCD) to require smoke-free policies in DHCD funded public housing.

STRATEGY 7: Advocate for DHCD to provide priority preference points to proposed housing projects that include smoke-free policies.

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



Objective 2: Increase the number of buildings/units that implement green and healthy housing upgrades by 2026.

STRATEGY 1: Promote the adoption of policies and practices among housing stakeholders that limit asthma triggers in new construction and preservation projects.

STRATEGY 2: Recommend housing development funding agencies endorse the adoption and implementation of green and healthy housing upgrade policies.

STRATEGY 3: Promote and recommend the adoption of green and healthy housing practices in new and existing affordable housing developments.

STRATEGY 4: Recommend private developers and landlords adopt green and healthy housing upgrade policies.

STRATEGY 5: Support and encourage green and healthy housing data collection initiatives.

Stakeholder-Led Strategies:

STRATEGY 6: Advocate to housing development funding agencies to incentivize the adoption and implementation of green and healthy housing upgrade policies.

STRATEGY 7: Advocate for adoption of green and healthy housing practices in new and existing affordable housing developments.

STRATEGY 8: Advocate for private developers and landlords to adopt green and healthy housing upgrade policies.

STRATEGY 9: Compile and/or establish baseline data for green and healthy housing (Mass CDC, DHCH, Independent Certification Agencies).

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



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Objective 3: Increase the capacity of housing and health professionals to prevent, assess, and mitigate asthma triggers in the home by 2026.

STRATEGY 1: Train housing and health professionals on evidence-based strategies to prevent, assess, and mitigate asthma triggers in the home.

STRATEGY 2: Support the development and expansion of CHW-led Asthma Home Visiting programs through training, technical assistance, best practice promotion, and knowledge sharing opportunities.

STRATEGY 3: Elevate the need for community level funding to support the mitigation of asthma triggers.

STRATEGY 4: Develop and promote opportunities for experiential learning through in-field assessments, trainings, TA, and information sharing to health and housing professionals.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for policies to establish community level funding to support the mitigation of asthma triggers.

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



Objective 4: Reduce housing-based health risks, especially known asthma triggers, by 2026.

STRATEGY 1: Educate residents, landlords, and property management agencies on housing-based health risks, especially known asthma triggers and best practices in mitigation strategies.

STRATEGY 2: Expand availability of asthma home visiting programs through resource connections.

STRATEGY 3: Expand the capacity of APCP-supported best practice asthma home visiting trainings to serve an increased number of Community Health Workers (CHW).

STRATEGY 4: Expand utilization of asthma home visiting programs through enhanced referral systems, established workflows, and the promotion of program efficacy.

STRATEGY 5: Recommend Accountable Care Organizations and elder care home visiting programs assessments include housing-based health risks that affect asthma.

STRATEGY 6: Promote widespread education of the public on housing-based health risks, especially asthma triggers.

Stakeholder-Led Strategies:

STRATEGY 7: Advocate to Accountable Care Organizations for policies to universally offer asthma home visits for patients with poorly controlled asthma.

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



Objective 5: Promote and support the development of communities of practice to bring stakeholders together to collectively address healthy housing issues by 2026.

STRATEGY 1: Engage healthy housing stakeholders statewide via MAAP to facilitate the sharing of best practices, collaboration among stakeholders and elevation of success stories around the reduction of housing-based health risks, especially known asthma triggers.

STRATEGY 2: Identify best practices and healthy housing successes to guide community-level “communities of practice” in establishing guiding principles and goals.

STRATEGY 3: Engage and encourage stakeholders to develop community-level communities of practice, including housing agencies, Board of Health (BOH), health care, schools, Community-Based Organizations (CBOs), tenant organizations, landlord associations, etc. to address local healthy housing issues.

Housing

GOAL: Advance access to safe, healthy, stable, and affordable housing in Massachusetts to address asthma inequities.



Objective 6: Increase the number of buildings and individual units where Integrated Pest Management (IPM) is being followed by 2026.

STRATEGY 1: Establish a baseline of information through collaboration with stakeholders to share data on IPM implementation.

STRATEGY 2: Educate housing stakeholders about the benefits of Integrated Pest Management.

STRATEGY 3: Promote the widespread distribution and use of the MDPH IPM toolkit.

Stakeholder-Led Strategies:

STRATEGY 4: Advocate for the inclusion of IPM in relevant municipal and state housing policies.



GOAL: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices.



Objective 1: Improve indoor air quality to reduce asthma triggers in school settings by 2026.

STRATEGY 1: Promote the implementation of regular indoor air quality assessments, building inspections, maintenance of buildings, and HVAC systems in schools.

STRATEGY 2: Promote the MDPH Clearing the Air Toolkit through Technical Assistance to school districts and individual schools in communities of focus. This includes integrated pest management, moisture and mold mitigation, toxic use reduction, decluttering, etc.

STRATEGY 3: Identify and share best practices and success stories of indoor air quality improvements in schools across MA.

STRATEGY 4: Engage healthy schools' stakeholders statewide via MAAP to facilitate the sharing of best practices, collaboration among stakeholders, and elevation of success stories around asthma-friendly schools.



GOAL: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices.



Objective 2: Improve access to professional nursing education opportunities in areas of prevention and control of asthma for school nurses by 2026.

STRATEGY 1: Promote best practices and guidance in asthma case management and environmental control curriculum for school nurses.

STRATEGY 2: Advance asthma-related professional development opportunities for nurses, school nurses, childcare health managers, and other appropriate school personnel.

STRATEGY 3: Support each school district in having at least one Certified Asthma Educator.

STRATEGY 4: Work with National Asthma Educator Certification Board (NAECB) to provide access to affordable Asthma Educator Certification registration for school nurses.

STRATEGY 5: Educate school nurses to provide evidence-based asthma self-management skills training to students with asthma.

Stakeholder-Led Strategies:

STRATEGY 6: Advocate for each school district to have at least one Certified Asthma Educator.



GOAL: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices.



Objective 3: Increase the number of school districts offering school-based asthma education programs for children and families affected by asthma by 2026.

STRATEGY 1: Prioritize the promotion of asthma prevention and control strategies, resources and programs in school districts serving the communities of focus.

STRATEGY 2: Ensure culturally and linguistically appropriate evidence-based asthma educational resources are available for students and families.

STRATEGY 3: Encourage schools to provide Asthma Self-Management Education to students (for ex: ALA Open Airways).

STRATEGY 4: Recommend inclusion of asthma education in health and science curriculum.

STRATEGY 5: Promote asthma education opportunities through school-based and district-wide wellness committees.

Stakeholder-Led Strategies:

STRATEGY 6: Advocate for the inclusion of asthma education in health and science curriculum.



GOAL: Establish healthy school environments that address asthma inequities through evidence-based asthma prevention and control policies and practices.

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Objective 4: Increase the percentage of students with asthma that have and use individualized asthma action plans in schools by 2026.

STRATEGY 1: Encourage parents/guardians to support communication between clinical providers and appropriate school personnel (ex: school nurses) to support asthma care coordination.

STRATEGY 2: Recommend the adoption of school policies requiring students with an asthma diagnosis to have an individualized Asthma Action Plan at school.

STRATEGY 3: Increase collaboration between schools, families, Primary Care Provider (PCP) and other care providers to support individualized Asthma Action Plans being provided and followed.

STRATEGY 4: Promote widespread education of school nurses, families, and care providers around the importance of individualized Asthma Action Plans.

STRATEGY 5: Ensure individualized Asthma Action Plans are regularly updated and are appropriate to the child's health.

Stakeholder-Led Strategies:

STRATEGY 6: Advocate for policies requiring students with an asthma diagnosis to have an individualized Asthma Action Plan at school.

Community & Clinical Coordination



GOAL: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



Objective 1: Disseminate and promote asthma management best practices that link clinical care and school health by 2026.

STRATEGY 1: Increase the number of evidence-based asthma education opportunities for school nurses and key school employees.

STRATEGY 2: Identify funding opportunities to support evidence-based asthma education.

STRATEGY 3: Identify and share best practices and success stories of coordinated asthma management between clinical and school teams from school systems across MA.

STRATEGY 4: Identify and educate key school leadership (e.g., superintendents) on the importance of coordinated school health and clinical care for successful asthma management.

STRATEGY 5: Continue ongoing engagement via MAAP to facilitate the sharing of best practices, collaboration among stakeholders and elevation of success stories around the coordination of clinical care and school health.

Community & Clinical Coordination



GOAL: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



Objective 2: Identify and promote evidence-based asthma training and education resources and best practices for providers across the clinical care team by 2026.

STRATEGY 1: Promote asthma education training opportunities to CHWs serving the communities of focus.

STRATEGY 2: Expand the capacity of APCP-supported best practice asthma education trainings to serve an increased number of CHWs.

STRATEGY 3: Broaden promotion of existing evidence-based training opportunities for asthma educators.

STRATEGY 4: Educate providers of asthma care on the availability and added benefits of asthma education provided by trained CHWs and opportunities to elevate CHWs within the asthma care team.

STRATEGY 5: Identify the key providers of asthma education across care settings to increase utilization of evidence-based asthma resources.



GOAL: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



Objective 3: Reduce asthma Emergency Department (ED) visits in the 11 communities of focus by 2026.

STRATEGY 1: Promote adherence to guidelines-based asthma care in the primary care setting and within home visiting programs.

STRATEGY 2: Recommend sustainable financing by payors for asthma home visits conducted by trained asthma home visitors, including CHWs.

STRATEGY 3: Identify barriers and promote culturally appropriate strategies to improve medication adherence.

STRATEGY 4: Promote access to and utilization of urgent care at PCP sites.

STRATEGY 5: Encourage primary care practices to develop enhanced communication to their patients and families that address treating acute asthma symptoms with a PCP visit.

STRATEGY 6: Encourage expansion of evidence-based home-visiting asthma care management programs.

STRATEGY 7: Recommend MassHealth and other payors cover durable medical equipment (e.g., home nebulizers, spacers, etc.) based on evidence of effectiveness rather than cost.

STRATEGY 8: Encourage PCP and Urgent Care hours and contact information to be added to Asthma Action Plans.

Stakeholder-Led Strategies:

STRATEGY 9: Advocate for sustainable financing by payors for asthma home visits conducted by trained asthma home visitors, including CHWs.

STRATEGY 10: Advocate to MassHealth and other payors to cover durable medical equipment (e.g., home nebulizers, spacers, etc.) based on evidence of effectiveness rather than cost.



GOAL: Foster coordination between community and clinical care in Massachusetts to address asthma inequities.



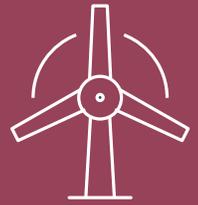
Objective 4: Reduce asthma related hospitalizations and repeat ED visits in the 11 communities of focus by 2026.

STRATEGY 1: Promote the use of evidence-based treatment protocols and most effective equipment to optimize inhaled drug delivery in the ED to reduce likelihood of hospital admission or recidivism from the ED.

STRATEGY 2: Recommend EDs have a mechanism to fill prescriptions for appropriate asthma medications (e.g., steroids) prior to discharge to prevent delays in care due to need to obtain medications to reduce likelihood of hospital admission or recidivism from the ED.

STRATEGY 3: Promote communication between primary care practices and EDs regarding patient ED visits to facilitate follow up care, including next day visits to reduce likelihood of hospital admission or recidivism from the ED.

Outdoor Air Quality



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.



Objective 1: Support policies and legislation that affirm MA residents constitutional rights to clean air by 2026.

STRATEGY 1: Educate diverse stakeholders about policies and proposed legislation that promote environmental justice.

STRATEGY 2: Support policies and practices that promote environmental justice.

STRATEGY 3: Increase awareness of existing state laws that promote healthy air quality and environmental justice.

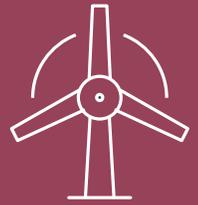
STRATEGY 4: Educate diverse stakeholders about the connection between climate change and increased asthma triggers.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for proposed legislation that promotes environmental justice.

STRATEGY 6: Advocate for stronger enforcement of existing state laws that promote healthy air quality and environmental justice.

Outdoor Air Quality



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.



Objective 2: Implement real-time local air quality monitoring to support healthy conditions for those with asthma in all 11 identified communities in MA by 2026.

STRATEGY 1: Identify best methodology and resources to promote local real-time air quality monitoring.

STRATEGY 2: Support efforts to develop and install real-time local air quality monitoring programs.

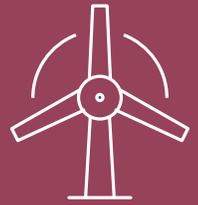
STRATEGY 3: Access and analyze data from local real-time air quality monitors to understand local air quality conditions and compare data with other MA communities.

STRATEGY 4: Recommend placement of additional federal air quality monitors in environmental justice communities, based on data from local real-time air monitors.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for funding and resources to develop and install real-time local air quality monitoring programs.

STRATEGY 6: Advocate for placement of additional federal air quality monitors in environmental justice communities, based on data from local real-time air monitors.



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.

3

Objective 3: Foster communication among outdoor air quality stakeholders in MA to identify and promote best practices related to real-time local air quality monitoring to empower communities burdened by asthma by 2026.

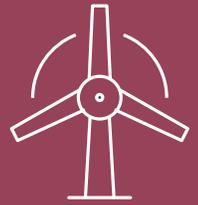
STRATEGY 1: Identify best practices related to data interpretation and communication techniques for real-time local air quality monitoring.

STRATEGY 2: Improve collaboration among air quality stakeholders to promote data coordination, access, and aggregation.

STRATEGY 3: Support a shared learning community for those conducting real-time local air quality monitoring to share methodologies, interpretation, and public messaging.

STRATEGY 4: Encourage open data sharing of air quality data and metadata for communities and researchers.

STRATEGY 5: Encourage the creation of standard data products (maps, AQI reports) and integrate satellite imagery into analysis and products.



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.



Objective 4: Empower individuals and communities inequitably burdened by asthma to take appropriate action to avoid unhealthy air by 2026.

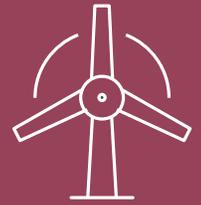
STRATEGY 1: Document, to the extent possible, the number of days that AQI is above 50 for communities experiencing high asthma burden.

STRATEGY 2: Elevate use of available data from local real-time air monitors and federal air quality monitoring by effected communities.

STRATEGY 3: Develop an educational program for people with asthma (and at higher risk of asthma) to increase knowledge and awareness about local air quality and in their ability to reduce personal exposure during spikes in poor air quality.

STRATEGY 4: Ensure support is available for those vulnerable (e.g., essential workers) who cannot avoid exposure to unhealthy air.

STRATEGY 5: Create a guide to accessing local AQI data and companion interpretation on what it means for health, in particularly asthma, and what actions people with asthma can take to protect themselves from poor air quality.



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.

5

Objective 5: Mitigate near roadway exposure and industrial site pollution that affects the air quality in schools, housing, daycare, nursing homes, and other indoor environments to meet national ambient air quality standards by 2026.

STRATEGY 1: Identify and promote evidence-based practices and policies regarding mitigating near roadway exposure and industrial site pollution.

STRATEGY 2: Educate city planners and Boards of Health about impacts of near roadway exposures and best practices for zoning and mitigation.

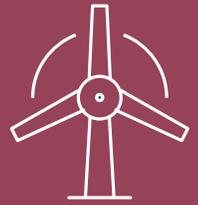
STRATEGY 3: Educate stakeholders on the importance of retrofitting/improving/replacing HVAC systems to mitigate air pollution.

STRATEGY 4: Recommend the incorporation of community design elements to control indoor exposure to near roadway exposure and industrial site pollution.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for funding to retrofit/improve/replace HVAC systems to mitigate air pollution.

STRATEGY 6: Advocate for resources and policies to incorporate community design elements to control indoor exposure to near roadway exposure and industrial site pollution.



GOAL: Achieve air quality levels that support equitable asthma prevention and control, and improve the overall health of Massachusetts residents.



Objective 6: Achieve zero emission transportation for 15% of public and private vehicles, starting with those that serve or pass through the 11 identified communities by 2026.

Aligned with Governor Healey's commitment to Climate & Energy Goals, including zero emissions aims and former Governor Baker's Zero Emission Vehicle Action Plan for MA.

STRATEGY 1: Recommend electrification of school buses, trucks, and commercial buses that serve and/or pass through the 11 communities of focus.

STRATEGY 2: Recommend for electrification of public transportation that serves and/or passes through the 11 communities of focus.

STRATEGY 3: Support and promote policies that maximize the use of public transportation, including capital investment in infrastructure.

STRATEGY 4: Recommend the development of Active Transportation Plans in the 11 communities of focus.

Stakeholder-Led Strategies:

STRATEGY 5: Advocate for policies and funding for electrification of school buses, trucks, and commercial buses that serve and/or pass through the 11 communities of focus.

STRATEGY 6: Advocate for policies and funding for electrification of public transportation that serves and/or passes through the 11 communities of focus.

STRATEGY 7: Advocate for policies that maximize the use of public transportation, including capital investment in infrastructure.

APPENDICES

APPENDIX A: Acronyms Used in this Strategic Plan

ACO

Accountable Care Organizations

ALA

American Lung Association

AQI

Air Quality Index

BOH

Board of Health

CBO

Community-Based Organizations

CHWs

Community Health Workers

DEP

Massachusetts Department of
Environmental Protection

DHCD

Department of Housing and Community
Development

ED

Emergency Department

EPA

United States Environmental Protection Agency

FAIR

Findability, Accessibility, Interoperability, and Reuse
of Digital Assets

HRiA

Health Resources in Action

HUD

United States Department of Housing and
Urban Development

HVAC

Heating, ventilation, and air conditioning

IAQ

Indoor air quality

IPM

Integrated Pest Management

MAAP

Massachusetts Asthma Action Partnership

MACDC

Massachusetts Association of Community
Development Corporations

MDPH

Massachusetts Department of Public Health

NAECB

National Asthma Educator Certification Board

PCP

Primary Care Provider

RTA

Registration and Title Application

TA

Technical Assistance

TURI

Massachusetts Toxic Use Reduction Institute

ZEV

Zero-Emission Vehicles

REFERENCES

- ⁱ Massachusetts Health Policy Commission, Health Equity: <https://www.mass.gov/info-details/health-equity>
- ⁱⁱ Behavioral Risk Factor Surveillance System (BRFSS) Adult Asthma Prevalence (MA and US): <https://www.cdc.gov/asthma/brfss/2020/tableC1.html>
- ⁱⁱⁱ BRFSS Child Asthma Prevalence (MA and US): <https://www.cdc.gov/asthma/brfss/2019/child/tableC1.html>
- ^{iv} CY2019 Massachusetts Hospitalizations Discharge Database, Massachusetts Center for Health Information and Analysis (CHIA): <https://www.chiamass.gov/>
- ^v 2016–2019 MA BRFSS Asthma Call-back Survey: <https://www.cdc.gov/brfss/acbs/index.htm>
- ^{vi} 2010 Census

