



Asthma in Michigan: A Blueprint for Action

Strategic Plan 2011 – 2014



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Dear Michigan Citizens:

The Asthma Initiative of Michigan (AIM) was formed in 2000 to coordinate and enhance asthma initiatives in the state of Michigan, using the state asthma strategic plan as its guide. After considerable success in improving asthma care and reducing Michigan's burden of asthma over the last 10 years, the members of AIM have updated the strategic plan for a third time in their continued effort to fine tune and enhance their initiatives.

It is my pleasure to support the Asthma Initiative of Michigan's third strategic plan, *Asthma in Michigan 2014: A Blueprint for Action*. The focus of the plan is to reduce asthma burden by concentrating on communities and populations enduring asthma disparities. AIM partners will be informed of current asthma data and identified best practice strategies. Collaborative implementation of the goals and objectives of this plan should result in improved quality of life and reduction of severe events for those with asthma.

I extend my thanks and gratitude to the individuals who contributed their time and expertise to the development of this plan. Together, we can work to improve the lives of people with asthma in Michigan.

Sincerely,



Jean Chabut, Deputy Director
Public Health Administration
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Introduction

The purpose of this plan is to provide direction to the Asthma Initiative of Michigan (AIM) and to guide the use of Michigan Department of Community Health (MDCH) staff, resources and partnerships. It informs the work of agencies, organizations and programs around the State, by providing current asthma data and identifying best practice strategies towards specific goals.

Plan Parameters

The plan was intentionally designed to provide strategic, focused direction for AIM. Its intent is to guide decisions and actions for the greatest impact in reducing the morbidity and mortality due to asthma. The plan was developed using the following parameters:

Healthy People 2010 Targets

The US Department of Health and Human Services' *Healthy People 2010* targets provide the framework for setting asthma goals and measurements.

Data-driven

The plan represents deliberate decisions based on the most currently available data and information. This includes Michigan surveillance data as well as asthma related best- and evidence- based practices.

Focused

Given limited resources, it is imperative to allocate resources in a more focused and targeted manner. While AIM provides information and data statewide, specific strategies are focused on communities and populations enduring a disparate burden of asthma.

Applied Systems Change Approach

AIM recognizes the importance of a systems change approach to bring about distinct and sustainable outcomes to reach *Healthy People 2010* targets. The plan is a model of applied systems change in addressing the asthma burden in targeted communities.

New Partnership Model

This plan identifies the organizations that have critical information and expertise necessary to help carry out tasks necessary for successful implementation of asthma

goals. Deliberate partner relationships with the Michigan Asthma Advisory Committee, community partners and strategic implementation partners are specifically defined as a result of this plan. This approach identifies and develops relationships with key organizations committed to directly addressing asthma in highest burden communities, rather than trying to partner with as many organizations as possible.

The Planning Process

Michigan Asthma Prevention and Control Program staff created the strategic framework for this plan on May 27, 2010. Their decisions were informed by the input of the May AIM Partnership Forum meeting. In August, the Michigan Asthma Advisory Committee provided comments to refine the strategic direction. A select group of strategic partners was also convened to discuss action steps, implementation opportunities and obstacles. The plan was completed by the MDCH Asthma Prevention and Control Program staff AIM partners.

The Michigan Asthma Prevention and Control Program would like to acknowledge the following partners who contributed to the development of *Asthma Initiative of Michigan: A Blueprint for Action: Strategic Plan 2011-2014*. Without their time and expertise during the strategic planning process, this document would not have been possible.

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History

During the mid 1990's the growing recognition of asthma as a significant public health problem lead to the development of AIM. At the local level, individuals and organizations began forming asthma coalitions to address asthma in their communities. At the same time, the American Lung Association of Michigan (ALAM) made asthma one of its three top program priorities, and actively assisted in developing local asthma coalitions.

MDCH's initial involvement with asthma began with the development of surveillance reporting. MDCH, using hospital discharge and mortality data for asthma, realized asthma constituted a significant public health problem in certain areas of the state. MDCH began communicating the data in these communities to raise the awareness that asthma is a serious disease. With the first CDC asthma grant obtained in 1998, initial efforts led to increased communication between local asthma coalitions, ALAM, MDCH, and other partners. The need for a coordination of these efforts to maximize the effects in those communities became apparent.

This communication and coordination resulted in AIM's first strategic plan, written in 2000. It addressed education of providers and patients, asthma management in clinical and community settings, and increasing awareness for the burden of asthma. The 2005 plan revision began a shift away from individual services and education to a systems and policy change approach with a heavier focus on disparity reduction.

The plan also called for the development of the Asthma Initiative of Michigan, incorporating asthma coalitions, the Michigan Asthma Advisory Committee, and the Michigan Asthma Communication Network, as well as many partner organizations. AIM is fortunate to have CDC support for asthma activities through 2014. The MDCH Asthma Prevention and Control Program activities include surveillance, partnerships, interventions, disparities reduction, and evaluation.

The current plan builds on AIM's history but has more focused effort in high burden areas and an applied systems change approach. In addition to activities described in the plan, the MDCH Asthma Prevention & Control Program will continue to provide data, information and expertise and to promote best practices for asthma control and management.

Situation and Trends

Overview

In the last two decades, there have been revolutionary changes in asthma care. Advances in clinical asthma research have resulted in new guidelines called the Expert Panel Report 3 - Guidelines for the Diagnosis and Management of Asthma, which have greatly improved the ability of people with asthma to control their disease. The key elements of clinical asthma care are enumerated in the Figure to the right.

The existence of guidelines does not guarantee their use. However, great strides have been made in understanding best

Priority Asthma Messages

1. *Use inhaled corticosteroids to control asthma.*
2. *Use asthma action plans to guide self-management.*
3. *Assess asthma severity at the first visit.*
4. *Assess and monitor asthma control at each follow-up visit.*
5. *Schedule follow-up visits.*
6. *Control exposure to allergens and irritants.*

Source: Guideline's Implementation Panel Report:
www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm

practices for implementation of the clinical guidelines and in improving self management practices and asthma-friendly environments from national efforts like National Cooperative Inner City Asthma Study, Allies Against Asthma, Controlling Asthma in American Cities, and Community Guide to Asthma Control.

During the last decade, activities in Michigan have expanded what is known about asthma management and control in the state, including information on self-management behavior, factors related to mortality, asthma management in schools, as well as data for specific communities and populations. Many best practices have been developed and implemented here in the state through AIM and partner efforts such as Michigan Asthma Resource Kit, in-home case management for asthma (MATCH), FLARE emergency visit discharge instructions, Michigan State Board of Education Model Policy on the Management of Asthma in Schools, Michigan School Inhaler Law, Healthy School Action Tool Asthma Assessment and Policy Module, Asthma 1-2-3 school staff training, professional education regarding work-related asthma, IAQ training, adoption of EPA-3 principles in the Asthma Guidelines of the Michigan Quality Improvement Consortium, all of which are available through www.GetAsthmaHelp.org.

Asthma control in Michigan will also benefit from improvements in environmental-related policy, education and interventions. For example, a number of recent successes:

- Passage of the Dr. Ron Davis Smoke Free Air Law
- Implementation of smoke-free policies in multifamily complexes
- Availability of data and warnings about outdoor air quality issues through systems like MiAir and EnviroFlash
- Adoption of Healthy Homes principles by many asthma-related programs

Asthma control will also benefit from efforts to improve primary care practice in the state and to implement the concept of patient centered medical homes. Asthma care is a focus of many of these initiatives including the Health Disparities Collaborative in federally qualified health centers, with contributions of resources and expertise from partners including the University of Michigan Health System Asthma Quality Improvement Steering Committee, Kent County Children's Healthcare Access Program, and Improving Performance in Practice. Part of the patient centered medical home concept includes development of community resources, such as MATCH and Michigan Partners on the Path, which help to improve health efficacy among people with asthma and their caregivers.

All of the best practices come with a balance of benefit and cost. Best practices in asthma control, as cited from Guideline’s Implementation Panel report, include use of action plans by all people with asthma; better use of appropriate medications; and case management with trained and certified asthma educators to assess and monitor asthma control and exposure to irritants. Certified asthma educators provide asthma education in a variety of settings. Some states authorize reimbursement of asthma education services by certified asthma educators, and some third-party payers also have recognized a need for asthma education by qualified professionals, although only pockets of reimbursement currently exist. While case management has proven effective, particularly with the low SES population, home visits can be a high-cost intervention and therefore targeted to individuals at highest risk of adverse asthma events. The role of AIM and partners is to identify and promote the use of best practice interventions that are most appropriate and feasible for each community.

The current fiscal crisis in State and local government, federal budget cuts to asthma initiatives, and the impact of the general economic environment on asthma stakeholders necessitates new approaches to addressing chronic disease issues. Asthma, in particular, does not “stand alone” – it is related to tobacco use, environmental quality and housing conditions, as well as being complicated by other common co-morbidities, such as obesity. Not surprisingly, the areas of highest asthma burden in Michigan are in populations with lower socioeconomic and education status, with less access to care, and poorer home and work environmental conditions. Asthma programming must address the disease from the perspective of social determinants of asthma control and, for the most impact, apply a systems change approach at the highest levels.

Asthma Control in Michigan

Asthma is an under-managed chronic disease in the state of Michigan, as evidenced by data on self management behaviors and health care utilization. Of the 686,000 adults with asthma in Michigan, less than one-half report that their disease is well controlled and nearly a quarter report their disease is poorly controlled. Of the 197,000 children in Michigan, 9.5% had two or more emergency department or urgent care visits for asthma in the last year and 3% had a hospitalization for asthma.

Michigan is also not meeting federal targets for asthma control (Table 1). Although most asthma deaths are considered preventable, in Michigan there are roughly 130 deaths due to asthma each year. Asthma mortality impacts black persons and people living in low income households disproportionately. The asthma mortality rate for

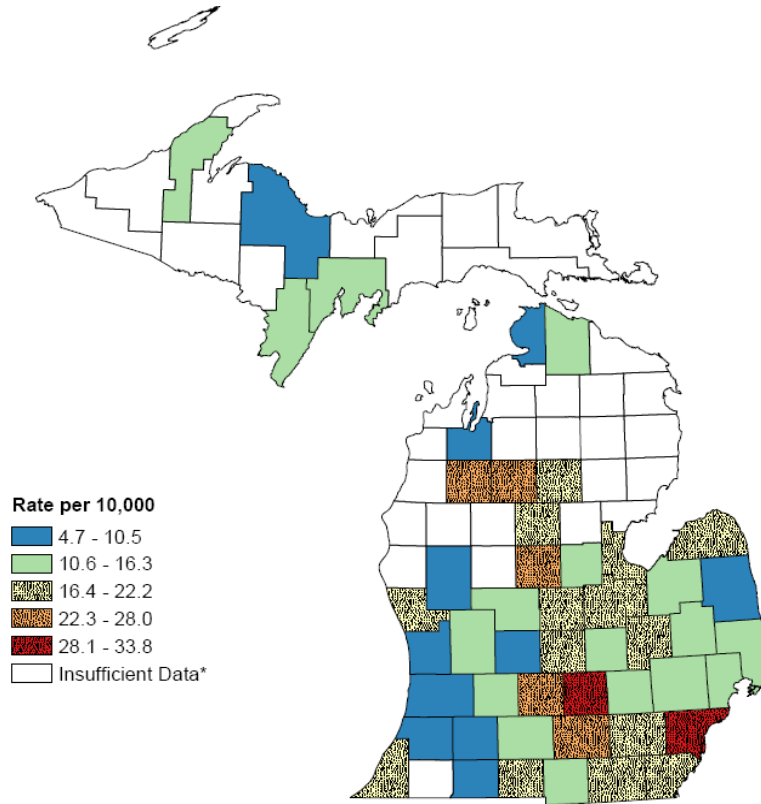
black persons is three times that for white persons. Furthermore, more than 70% of children and 40% of young adults (18-34 years) who died due to their asthma were enrolled in Michigan Medicaid Programs at the time of their death.

Table 1: Comparison of US Healthy People 2010 Objectives with Michigan data.

US Healthy People 2010 Objective	Target	Michigan
Reduce asthma deaths (deaths/million people)	<5 Years: 0.9	*
	5-14 Years: 0.9	5.8
	15-34 Years: 1.9	5.6
	35-64 Years: 8.0	12.4
	≥65 Years: 47.0	42.8
Reduce hospitalizations for asthma (hospitalizations/10,000 people)	< 5 Years: 25.0	37.6
	5-64 Years: 7.7	12.7
	≥65 Years: 11.0	28.1
Reduce emergency department visits for asthma (visits/10,000 people)	< 5 Years: 80.0	Data not available
	5-64 Years: 50.0	
	≥65 Years: 15.0	
Reduce activity limitations due to asthma (% of people with asthma)	6	4.6
Reduce school or work days missed (mean days missed)	2	12.8
Increase proportion of people with asthma who have		
Asthma education	30	7.0
Action plan	38	26.8
Adequate medication regimes	92	44.8
Follow up medical care after hospitalization	87	76.4
Assistance in assessing and reducing trigger exposure	50	43.0

Hospitalization due to asthma is much more common. There are more than 16,000 asthma hospitalizations in Michigan each year (16.0 hospitalizations per 10,000 people). The asthma hospitalization rate for black persons is over four times that for white persons and the hospitalization gap between these two groups is increasing over time. Michigan counties with rates of asthma hospitalization significantly higher than the rate for the state as a whole were Baraga, Bay, Genesee, Ingham, Saginaw, and Wayne Counties (Figure 1).

Figure 1: Asthma Hospitalization Rates for Children in Michigan, MIDB 2006-08, MDCH age-adjusted to the 2000 US Std. Population.



Although Michigan does not have a surveillance system for emergency room visits for asthma, data are available for children (0-18 years) in Michigan Medicaid programs. There are 196.3 asthma visits per 10,000 children in the program, significantly higher than any of the Healthy People 2010 age-specific targets for this indicator. Even among this low income population, racial and geographic disparities in emergency department use persist. Rates are 2.7 times higher among black children than among white children and are 2.2 times higher in urban areas than in rural.

Goals of asthma care and self management are not being met in Michigan. As can also be seen in the table above, the percentages of people with asthma in Michigan reporting that they have been educated about asthma, received an asthma action plan or received assistance with environmental triggers reduction is low. Prescription and use of inhaled corticosteroids must be improved as well, based on self-reported data about medication use documented above.

There are clear linkages between adverse asthma events and the lack of asthma action

plans, adequate medication, primary care follow up and other elements described above. For example, the most frequent causal factors associated with asthma deaths among children and young adults are:

- Issues with self-management behaviors such as inadequate use of inhaled corticosteroids, overuse of rescue medications, and persistent exposure to asthma triggers.
- Inadequate prescription of inhaled corticosteroids by health care providers.
- Need for specialist referral and patient follow-up, pulmonary function testing, and case management for high-risk patients.
- Lack of regular medical care with primary care providers.

Conclusion

Despite medical advances, the goals of asthma treatment are not being met for many people in the state of Michigan, with severe consequences. There continue to be significant economic, racial and geographic disparities in asthma burden that must be addressed. A clear need exists for a coordinated system of care in the state that enables follow up and routine care. This strategic plan is an effort to improve the coordination of asthma care, the use of action plans and long term controllers in the state.



Strategic Framework

This strategic framework outlines the core decisions used to develop the goals, objectives, and strategies in this plan. The framework focuses on high burden areas and develops a coordinated applied systems change approach.

Mission

To effectively improve asthma outcomes by reaching or surpassing the targets cited in the Healthy People 2010 document.

Impact

- In high burden areas, asthma control is improved
- Hospitalizations, emergency visits decreased
- Self reporting on poor control or not well controlled improves

Guiding Principles

- Informed by data and best practices
- Within role of State towards efficiency and effectiveness
- Committed to measurable health outcomes
- Be a strong strategic partner
- Focus to make a difference given limited resources

Role

- Leadership (set agenda, facilitate, empower)
- Expertise (data, best practices, standards and guidelines, certification)
- Resources

Target Populations

- Communities with higher rates of asthma hospitalization and mortality
- Populations experiencing higher burden of asthma, in particular African Americans and low income residents.

Position

Be the strongest advocate for asthma as a chronic disease that requires management; and demonstrate a focused, integrated approach to addressing the issue

Strategic Focus

- Health systems
- Integrated (patient centered)

Imperatives

- Systems change: Focused, priority area “systems” and patient centered approach
- Knowledge and education – standards and best practices
- Integration

Goals and Objectives

Goal 1: Reduce asthma emergency visit rates in at least two high burden communities by 25 percent by December 2013.

- ▶ Objective 1: In at least 2 high burden communities, improve communication and coordination of asthma care to promote patient centered medical homes in accordance with national asthma guidelines.
 - Strategy 1: Implement Guideline Implementation Steps and Tools (GIST) program with area primary care providers using area networks¹.
 - Strategy 2: Establish and maintain in-home case management for high-risk individuals (e.g., Managing Asthma Through Case Management in Homes (MATCH)).
 - Strategy 3: Intervene at asthma visits to the emergency department to provide connectivity with primary care resources through referrals.
 - Strategy 4: Work with existing Health Information Networks to ensure effective transmission of crucial asthma information (i.e., emergency department visits and pharmacy utilization) to primary care.
 - Strategy 5: Identify and promote community self-management resources such as Michigan Partners on the PATH, Open Airways and Asthma 1-2-3.
 - Strategy 6: Ensure coordination and integration of asthma activities in Healthy Homes initiatives.

Goal 2: Improve asthma self-management as reflected by the use of Inhaled Corticosteroids by 30% statewide by December 2013.

- ▶ Objective 1: Foster best practice interventions for asthma care among community partners.
 - Strategy 1: Train and incentivize strategic partners to endorse and promote use of identified best practices.
 - Strategy 2: Identify and disseminate current data and best practices in asthma management and education, including trigger reduction.
 - Strategy 3: Increase use of certified asthma educators (AE-C) as part of standard of care in Michigan.
- ▶ Objective 2: Identify and coordinate dissemination of compelling asthma messages² to the general public.

¹ i.e., Federally qualified health centers, local public health, practice organizations, school-based health centers

² Asthma is a serious problem with a feasible solution

- Strategy 1: Develop and maintain relationships with schools, faith based and non-traditional organizations to promote and disseminate key messages.
- Strategy 2: Identify and utilize avenues for dissemination of key asthma messages.

Goal 3: Diversify resources for asthma activities at state and local levels.

- ▶ Objective 1: Obtain two additional funding sources for asthma initiatives.
 - Strategy 1: Each staff person builds relationships with existing and new partners to secure additional resources.
 - Strategy 2: Seek private sector funding for sponsorship of AIM Partnership Forum.
 - Strategy 3: Integrate AIM activities into asthma initiatives at academic institutions as appropriate.
- ▶ Objective 2: Integrate AIM asthma activities in at least two state-level programs.
 - Strategy 1: Identify opportunities for integrating asthma management activities into MDCH programs for children.
 - Strategy 2: Partner with MDCH programs to increase primary care access to address asthma needs.
 - Strategy 3: Partner with Michigan Department of Environmental Quality air quality programs to increase awareness of effects of air quality on asthma among the public and stakeholders.

Partners

This plan more clearly defines AIM’s partners and distinguishes among partnerships. There are several partnership segments, each with distinct roles and responsibilities.

Michigan Asthma Advisory Committee (MAAC)

The MAAC brings unsurpassed subject matter expertise, experience and credibility. MAAC is composed of individuals representing organizations involved in asthma treatment, interventions, research, and coalitions throughout Michigan, many of whom have a broad, statewide perspective. Membership consists of the co-chairs for the Asthma in Schools Subcommittee, the Quality Improvement in Asthma Care Subcommittee, the Asthma Epidemiology & Surveillance Subcommittee, the Environmental Quality Subcommittee, and the Consortium of Asthma Coalitions Chair.

Primary responsibilities for MAAC include:

- Provide advice and expertise toward the implementation of the Asthma Strategic Plan
- Review and advise on evaluation plans and findings
- Coordinate and facilitate activities between sub-committees/project teams
- Address membership/sustainability issues
- Provide advice on Michigan Asthma Communication Network (MACN) as needed. MACN will coordinate and facilitate communication between subcommittees and project teams

Implementation Partners

To be successful in achieving its strategic goals, AIM must work in partnership with a deliberately chosen group of stakeholders. An initial meeting of the group was held on August 19, 2010. The partners represent high burden areas (i.e., Genesee, Ingham and Saginaw counties and the city of Detroit) or represent other state agency programs that influence asthma care or and management.

The primary role for these partners is to work closely with AIM to accomplish specific strategic goals. The partners are the community and program experts, act as the liaison to key stakeholders such as local clinics or physicians, and have influence to bring about systems change. Primary responsibilities include:

- Facilitate the accomplishment of strategic goals through implementing specific action steps as mutually determined with AIM
- Serve as the community advocate for asthma initiatives
- Provide community knowledge and access
- Work with AIM to utilize resources towards measureable results

Community Coalitions

There are 11 asthma coalitions that operate in 27 counties throughout Michigan. Coalition members generally represent the stakeholders and service providers in their particular community. They can include representatives from local hospitals and clinics, health plans, universities, local public health, and school personnel.

The role of the coalitions is to use and disseminate appropriate asthma messages and to advocate for and employ asthma best practices to reduce the burden of asthma in their community. The coalitions collaborate with other agencies or institutions to serve specific populations, and engage new partners who can make a difference in the lives of people with asthma.

Coalition activities include:

- Advocating on behalf of people with asthma in the community

- Sharing data, information, best practices
- Raising awareness of the burden of the disease
- Providing training, education and direct services where appropriate

Stakeholders

AIM has a number of stakeholder groups that are necessary for plan implementation. These include agencies and programs within State government; academic and research institutions; community and nonprofit groups and “non-traditional” partners from outside of chronic disease, such as environmental health organizations, and maternal child health programs. In addition, AIM is committed to working more proactively with the private sector, including hospitals, pharmaceutical companies or worksites.

The role of these groups is to work with AIM to incorporate asthma best practices within their programs, to communicate accurate information to their stakeholders, and to provide resources (staff, financial, in-kind) to support the accomplishment of AIM strategic goals.

State Role and Responsibilities

Functions

The plan has implications for the roles, functions and responsibilities of MDCH Asthma Prevention & Control Program staff. State and affiliate personnel must carry out the roles of leadership, expertise and resource development by working together with partners to define the issues and needs, translate and apply best practices, and attract and allocate resources to achieve goals.

To implement the plan, primary functions include:

- Surveillance of asthma prevalence, triggers, management, and morbidity
- Evaluation of activities and progress to reaching goals
- Identify and address disparities in asthma
- Program development and implementation
- Project management
- Partner relations
- Communication
- Public relations and marketing
- Resource development

Staff will use applied systems strategies to maximize their effectiveness with a more integrated team approach, bringing a variety of expertise and skills to particular communities and achieve goals.

The plan has implications for prioritizing and managing tasks and workloads. Staff will use specific project plans developed with strategic partners to stay focused on those tasks that will achieve goals.

This strategic plan was developed in consultation with Shelli Bischoff of Nonprofit Impact (www.nonprofitimpact.com). Ms. Bischoff skillfully facilitated the strategic planning process and provided the vision for this document. The Asthma Initiative of Michigan would like to thank Ms. Bischoff for her contributions.

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