WISCONSIN ASTHMA PLAN 2015-2020

Created by the Wisconsin Asthma Coalition and funded in part by the Wisconsin Department of Health Services through a U.S. Centers for Disease Control and Prevention Cooperative Agreement (Award Number 2U59EH000503-06 - Comprehensive asthma control through evidence-based strategies and public health-health care collaboration).
Asthma is a chronic lung condition that affects 15 percent of adults and 10 percent of children in Wisconsin. The burden of asthma in Wisconsin is not equally shared, with certain minority groups, age groups and geographic regions disproportionately affected. Too many people with asthma in Wisconsin struggle to thrive at work or school and are subject to reduced quality of life because their asthma remains poorly controlled. It is with the input of many dedicated statewide partners that we have created this strategic plan to comprehensively address asthma as a public health issue in Wisconsin.

Recent changes in our health care delivery system have provided the Wisconsin Asthma Coalition with new challenges and great opportunities to address asthma in a comprehensive way. As detailed in the Wisconsin Asthma Plan 2015-2020, the Wisconsin Asthma Coalition seeks to provide a seamless alignment of asthma services across the public health and health care sectors. This plan provides the blueprint for the public health and health care sectors to join efforts in their shared goal of empowering people with asthma to live better and healthier lives.

Taking control of asthma will require a comprehensive approach to asthma management, ensuring access to guidelines-based care and pharmacotherapy and provision of self-management education, school-based services and home-based trigger reduction services. These various strategies are outlined in the plan’s four priority areas: routine health care, pharmaceutical care, education and environment.

Addressing persistent asthma-related health disparities is crucial for our success. This plan includes goals and objectives to promote cultural competence and improve health care access and continuity of care.

The Wisconsin Asthma Coalition has made great strides over the past five years, but important work remains to be completed. Assembling this strategic plan and its goals and objectives is the collaborative work of Children’s Health Alliance of Wisconsin, Wisconsin Department of Health Services, U.S. Centers for Disease Control and Prevention and the broad range of representatives who comprise the Wisconsin Asthma Coalition. We are encouraged by and grateful for the continued commitment and passion of those who contributed to the Wisconsin Asthma Plan 2015-2020. We are pleased to support this plan and contribute to its implementation.

Kitty Rhoades
Secretary, Wisconsin Department of Health Services

Rhonda Duerst, RRT-NPS
Chair, Wisconsin Asthma Coalition
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OVERVIEW

Asthma is a chronic lung condition characterized by ongoing airway inflammation associated with increased airway responsiveness to a variety of stimuli. Inflammation causes reversible airway obstruction, which results in symptoms, such as episodic wheezing, chest tightness, cough and shortness of breath. A variety of factors are known to trigger asthma episodes (attacks), including allergens (e.g., pollen, dust mites and mold), viral infections, irritants (e.g., chemicals, tobacco smoke and air pollution) and other factors, such as exercise, cold air and stress.

This complex, multi-faceted condition requires a comprehensive approach to effective management at both the individual and population levels. Comprehensive asthma care includes a seamless alignment of the full array of services across the public health and health care continuum.

The National Asthma Education and Prevention Program Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (NIH asthma guidelines) outlines four components of care including routine health care visits, pharmacological treatment to effectively manage and control symptoms, patient education, and an environment that minimizes exposure to asthma triggers.

Providing comprehensive care at a population level requires a stepwise approach. The first step is to ensure all people with asthma have access to guidelines-based medical management and pharmacotherapy. For the segment of the population whose asthma remains poorly controlled, additional steps must be taken to provide or link them with progressively more individualized services (e.g., intensive self-management education, home-based trigger reduction services and other environmental management strategies). The Wisconsin Asthma Coalition (WAC) created the Wisconsin Asthma Plan 2015-2020 to address all of these necessary components of asthma care.

Partnering with WAC

While Wisconsin has made significant progress, asthma remains a critical issue requiring a comprehensive approach. As the 2015 president of the American Academy of Allergy Asthma and Immunology (AAAAI), and with my main initiative being asthma, I look forward to working with the WAC to enhance the partnerships between families, clinicians and schools to improve asthma management.

- Robert F. Lemanske, Jr., MD, Professor of Pediatrics and Medicine at the University of Wisconsin School of Medicine and Public Health and 2015 President of the AAAAI

Addressing disparities
The intent of the Wisconsin Asthma Plan 2015-2020 is to focus activities on
disparately-impacted populations in Wisconsin. The overall burden of asthma cannot be reduced without resolving the issues that contribute to the disproportionate burden of asthma in the state. Data from the Burden of Asthma in Wisconsin 2013 drive the activities included in the Wisconsin Asthma Plan 2015-2020 with careful assessment of how health disparities could best be identified, measured and addressed. Refer to the asthma disparities in Wisconsin section on page 10 for additional information.

Alignment with Healthiest Wisconsin 2020 and Healthy People 2020
The WAC draws upon the expertise used in the creation of Healthiest Wisconsin 2020 (Wisconsin Department of Health Services, 2010) and Healthy People 2020 (U.S. Department of Health and Human Services, 2010) as directional guidance for the statewide asthma plan. The goals, objectives and action steps in the Wisconsin Asthma Plan 2015-2020 support the goals in each of these documents.

Projected Wisconsin outcomes for 2015-2020
Reduced asthma deaths
• From 11.3 deaths per one million in 2012 (an average of 66 deaths annually, during 2003-2012)

Reduced hospitalizations for asthma, focusing on racial and ethnic disparities
• From the overall rate of 8.4 hospitalizations per 10,000 in 2013
  o From 35.0 hospitalizations per 10,000 among African-Americans in 2013
  o From 10.1 hospitalizations per 10,000 among Native Americans in 2013
  o From 10.8 hospitalizations per 10,000 among Hispanics in 2013

Reduced emergency department visits for asthma, focusing on racial and ethnic disparities
• From the overall rate of 34.5 emergency department visits per 10,000 in 2013
  o From 148.0 emergency department visits per 10,000 among African-Americans in 2013
  o From 53.7 emergency department visits per 10,000 among Native Americans in 2013
  o From 38.1 emergency department visits per 10,000 among Hispanics in 2013

Reduced the proportion of persons with asthma who missed school or work days
• From 46.3 percent of all children with asthma who missed at least one day of school in the past 12 months due to their asthma (during 2006-2010)
• From 24.0 percent of adults with asthma who reported they were unable to work or carry out usual activities for one or more days due to their asthma in the past year (during 2006-2010)
Increased the proportion of persons with current asthma who receive appropriate asthma care according to the NIH asthma guidelines
  • From 29.6 percent of adults and 41.7 percent of children in Wisconsin with a current asthma diagnosis who reported having at least two routine checkups for their asthma in the past 12 months (during 2006-2010)
  • From 30.6 percent of adults and 46.9 percent of children in Wisconsin with asthma who were given an asthma action plan by their health care provider (during 2006-2010)

Changes from the Wisconsin Asthma Plan 2009-2014
This Wisconsin Asthma Plan 2015-2020 is divided into four priority areas: routine health care, pharmaceutical care, education and environment. These priority areas are in direct alignment with the four components of care outlined in the NIH asthma guidelines. While the previous plan included a section dedicated to asthma surveillance, this plan has been reorganized to reflect the need for surveillance data to support broader activities and objectives. The former standardized quality care was renamed to be routine health care to more clearly reflect the content of the section. Objectives and activities from the previous plan that were completed or no longer relevant have been removed. New objectives and activities have been added to continue programs proven to work, build upon existing opportunities and address new concerns.

Wisconsin Asthma Plan 2015-2020 goals and objectives
Routine health care
Goal: Increase implementation of current NIH asthma guidelines for optimal diagnosis and management of asthma by health care providers.

Objective A: Implement the WAC asthma focused follow-up visit components to support practice guidelines for health care providers.
Objective B: Increase the number of patients who complete a follow-up visit with a primary care provider after an urgent care, emergency department visit or hospitalization.
Objective C: Increase communication and collaboration to improve asthma management.

Partnering with WAC
The Wisconsin Asthma Plan is important – it aligns the work of asthma programs throughout the state and inspires new perspectives!
The WAC creates the space for stakeholders throughout Wisconsin to learn from each other and identify innovative opportunities. Keep up the good work!
- Erin Lee, MS, Fight Asthma Milwaukee Allies
Objective D: Strengthen partnerships with Wisconsin Medicaid leadership to improve asthma outcomes.
Objective E: Promote the importance of respiratory disease vaccines for asthma management.

Pharmaceutical care
Goal: Increase appropriate use of pharmacologic therapy for asthma management.

Objective A: Improve access and adherence to asthma therapy and management.
Objective B: Encourage appropriate prescribing and utilization of asthma medications.

Education
Goal: Increase education that fosters a partnership among the patient, family, caregivers and clinicians.

Objective A: Support certification for asthma educators.
Objective B: Secure reimbursement for asthma services.
Objective C: Promote and provide asthma education.
Objective D: Increase public awareness and policy efforts around asthma.

Environment
Goal: Improve environmental control measures to avoid or eliminate factors that precipitate asthma symptoms or exacerbations.

Objective A: Increase implementation of school environmental programs.
Objective B: Increase implementation of home environmental programs.
Objective C: Reduce the burden of asthma in the workplace.
Objective D: Reduce exposure to asthma triggers in outdoor environments.
Objective E: Support statewide tobacco prevention and control efforts.

Evaluation of the Wisconsin Asthma Plan
Program evaluation allows for critical examination of information regarding activities and outcomes. This information is used to improve effectiveness and inform decisions about the development of future implementation efforts.

The importance of evaluation continues to grow as policymakers and other stakeholders increase demands for accountability. Evaluation is a key component in the WAC’s ability to shift with the changing environment and adjust activities to match program needs.

The evaluation team for the Wisconsin Asthma Plan 2015-2020 will review performance measurements and program outcomes. Evaluation data will be used for
evidence-based decision-making, quality improvement efforts, policy change, resource allocation and program change. For example, during the first two years, performance measurements will be used to demonstrate the effectiveness of utilizing a community navigator to connect patients to care and an asthma educator to assess the home for environmental triggers and provide asthma education. As a result, this information will be shared to promote program expansion and encourage payers to fund this type of initiative in Wisconsin. Solid evaluation is the most effective way to ensure sustainability of Wisconsin Asthma Plan 2015-2020 activities.

Conclusion
The WAC continues to stay apprised of the changing landscape in health care and thus has made significant changes in the Wisconsin Asthma Plan 2015-2020 to improve the care given to those experiencing a disproportionate burden of asthma and to more accurately reflect the current national trends in asthma. The WAC remains committed to the people of Wisconsin and will work through its dedicated and passionate partners to implement the objectives and activities outlined in the plan.

WISCONSIN ASTHMA COALITION

Since its inception in 2001, the WAC has grown to more than 200 members and 10 local coalitions. The WAC membership is diverse including, but not limited to, environmental experts, nurses, pharmacists, physicians, schools, state and local government, and members of tribal communities. Children’s Health Alliance of Wisconsin, affiliated with Children’s Hospital of Wisconsin, Inc., continues to coordinate the WAC and facilitate the creation and implementation of the Wisconsin Asthma Plan.

WAC vision: Taking control of asthma.

WAC mission: Fostering partnerships to improve asthma management, enhance quality of life, reduce disparities and prevent asthma-related deaths.

For more information about the WAC, membership opportunities or implementation strategies, please visit: www.chawisconsin.org.

Partnering with WAC
The WAC started with only a few members from around the state who had an interest in improving the lives of people with asthma. Through the efforts of coalition leadership our membership has significantly grown. People who had never worked together before have been able to come together, share ideas, advocate, plan and implement initiatives that have resulted in improving the quality of life for people with asthma. Through this work the WAC has become an influential leader in Wisconsin.

- Rhonda Duerst, RRT-NPS, Chair, Wisconsin Asthma Coalition, Children’s Hospital of Wisconsin
Executive committee
The WAC executive committee meets monthly to guide, monitor and make recommendations to create and implement the Wisconsin Asthma Plan.

Chair - Rhonda Duerst, RRT-NPS, Children’s Hospital of Wisconsin
Vice chair - Michelle Mercure, CHES, American Lung Association in Wisconsin

Guiding principles
The guiding principles serve as the core foundation from which the WAC maintains its inherent desire to take control of asthma.

• The WAC membership endorses the mission and vision of the coalition and is responsible for its success and failures.
• The WAC leadership listens to members and external stakeholders and is open to new ideas or ways of operating programs.
• Communication lines are open and transparent between leadership and membership.
• Direct and deliberate actions are required to effectively overcome asthma-related health inequities.
• The WAC utilizes external and internal data to develop, alter or expand programs using evidence-based best practices.
• The WAC will actively evaluate progress.
• The WAC is committed to addressing health disparities.
ASTHMA DISPARITIES IN WISCONSIN

The burden of asthma is not equally shared in the population. Certain age groups, gender, racial and ethnic minorities, geographic regions, and socioeconomic groups are disproportionately affected.

Age and gender
Across age categories, children younger than age 5 have the highest hospitalization rate (21.0 per 10,000, 2013) and emergency department visit rate (71.5 per 10,000, 2013) in Wisconsin. By gender, females have higher asthma prevalence and rates of health care utilization after puberty, while males are more severely impacted by asthma during childhood. A disproportionate burden of asthma among females versus males is reflected in lifetime asthma prevalence (15.5 vs. 12.2 percent, 2013), hospital emergency department visits (36.0 vs. 32.9 per 10,000, 2013), inpatient hospitalizations (9.7 vs. 7.1 per 10,000, 2013) and mortality (13.4 vs. 8.7 per million in 2012).

Race and ethnicity
At both state and national levels, asthma-related adverse health outcomes continue to disproportionately affect Hispanics and non-Hispanic minority populations including African-Americans and Native Americans. African-Americans have the highest lifetime prevalence of asthma (18.7 percent in 2011-2013), obtain emergency department care for asthma at seven times the rate of whites (148.0 versus 21.5 emergency department visits per 10,000 in 2013), are hospitalized at six times the rate of whites (35.0 versus 5.7 hospitalizations per 10,000 in 2013) and are almost four times more likely to die from asthma than whites (33.8 versus 8.8 deaths per million in 2010-2012). The limited data available on Wisconsin’s Native American population indicate this population is disproportionately affected by asthma as well. Native Americans in Wisconsin have only slightly higher asthma prevalence than whites, but twice the asthma emergency department visit and hospitalization rates (53.7 versus 21.5 emergency department visits per 10,000 and 10.1 versus 5.7 hospitalizations per 10,000 in 2013). Similarly, Hispanics are hospitalized for asthma and obtain asthma care through the emergency department at almost twice the rate of non-Hispanic whites (38.1 versus 21.5 emergency department visits per 10,000 and 10.8 versus 5.7 hospitalizations per 10,000 in 2013).

Partnering with WAC
The WAC funding for an asthma health promotion pilot project allowed us to reach out to independently owned child care centers in an area of Milwaukee with a high rate of asthma. After walkthroughs and education were completed, 100 percent of child care centers implemented recommended environmental changes and 57 percent of the child care centers now have asthma care plans for children with asthma.

- Betty Koepsel, MSN, RN, University of Wisconsin Milwaukee College of Nursing
Geographic regions
Milwaukee County is the most populous, racially and ethnically diverse and urbanized county in the state. It has the highest asthma hospitalization rate in the state (19.5 per 10,000, 2011-2013) and ranks second highest among counties for asthma emergency department visits (74.4 per 10,000, 2011-2013). Menominee County, which is primarily composed of members of the Menominee Tribe, ranks second highest among counties for asthma hospitalizations (18.6 per 10,000, 2011-2013) and has the highest emergency department visit rate in the state (75.8 per 10,000, 2011-2013). In addition, Kenosha, Racine and Rock Counties have had consistently high asthma emergency department visit and asthma hospitalization rates over the past decade.

Socioeconomic status
Asthma prevalence in adults appears to be inversely associated with income level. Adults with the lowest annual household income in 2011-2013 (less than $15,000) reported the highest asthma prevalence (17.5 percent), while households earning more than $75,000 annually reported the lowest asthma prevalence (6.6 percent). Overall, trends show a decrease in current asthma prevalence with an increase in income. Furthermore, households with the lowest incomes also report higher rates of poorly-controlled asthma.

BURDEN OF ASTHMA

The Asthma Surveillance Pyramid (Figure 1) is a model developed by the U.S. Centers for Disease Control and Prevention to describe the spectrum of asthma indicators and the means by which the burden of asthma may be measured. Each level of the pyramid represents an indicator of asthma. The pyramid sits on a base that represents asthma prevalence, or all people with asthma. This is the largest tier in the pyramid and represents those at risk for adverse asthma-related health events resulting in emergency department utilization, inpatient hospitalization or death. Each successively higher level in the pyramid represents an increasingly severe or costly outcome, affecting a smaller proportion of people with asthma. Outside the pyramid are four factors that impact or are impacted by asthma: quality of life, cost, pharmacy and triggers. The Burden of Asthma in Wisconsin 2013 report highlights data for many of these indicators and illustrates the need for continued statewide efforts to address asthma as a public health priority.

Partnering with WAC
My participation in the WAC for more than 10 years has been exciting as the organization continues to evolve and grow. The coalition provides a unified voice, guidance and support as we work together in reducing the burden of asthma. I’m proud to be part of this influential organization.

- Todd Mahr, MD, Gundersen Health System
The infographic (pages 14-15) summarizes the most recent asthma data including prevalence, disease management, emergency department visits, hospitalizations and mortality. In 2013, 10.4 percent of adults and 7.8 percent of children in Wisconsin had current asthma. This prevalence estimate translates to approximately 450,000 adults (1 in 10 adults) and 100,000 children (1 in 13 children) affected by asthma in 2013. While asthma mortality in Wisconsin has been decreasing, 76 people died from asthma in 2012. Of those who died from asthma, 47.4 percent were age 65 or older at the time of death.

In Wisconsin, there were 18,642 emergency department visits and 4,992 hospitalizations with asthma listed as the primary diagnosis in 2013, leading to more than $100 million in billed charges. Children younger than age 5 had the highest rates, which were three times higher than adults 35-64 years of age. Racial and ethnic disparities in asthma health care utilization continue to persist. When compared to other racial/ethnic groups in Wisconsin, African-Americans have the most striking disparities in asthma emergency department visit and hospitalization rates (six times higher than non-Hispanic whites). Native Americans and Hispanics have asthma emergency department visit and hospitalization rates that are twice as high as non-Hispanic whites.

Significant progress remains to be achieved in assuring that people with asthma can properly manage and control their disease. Asthma symptoms are responsible for decreased quality of life, sleep disturbances and an inability to carry out one’s normal activities. In Wisconsin, approximately half of adults (52.6 percent) and two-thirds of children (66.7 percent) with asthma report their asthma is well-controlled. Almost half
(46.3 percent) of all children with asthma missed at least one day of school in the past 12 months due to their asthma. One-fourth (24.0 percent) of adults with asthma reported that they were unable to work or carry out usual activities for one or more days due to their asthma in the past year. Almost half (46.6 percent) of ever-employed Wisconsin adults with asthma reported their asthma was caused or made worse by exposures at work.

Medical management of asthma in the state continues to fall short of the NIH asthma guidelines, which recommend that persons with asthma receive at least two routine checkups per year, receive an annual influenza vaccine and are provided a written asthma management plan. Less than one-third (29.6 percent) of adults and less than half (41.7 percent) of children in Wisconsin with a current asthma diagnosis reported having at least two routine checkups for their asthma in the past 12 months. Flu vaccination was highest among adults with asthma age 50 or older (69.5 percent), compared to adults with asthma ages 18 to 49 (40.8 percent). Less than one-third (30.6 percent) of adults and less than half (46.9 percent) of children in Wisconsin with asthma were given an asthma action plan by their health care provider. The disproportionate burden of asthma and lack of adherence to treatment guidelines suggest that opportunities exist to enhance the care and health of people with asthma.
The impact of 
ASTHMA 
in Wisconsin

ASTHMA IS COMMON

MORE THAN HALF A MILLION WISCONSINITES

1 IN 10 ADULTS

1 IN 13 CHILDREN

ASTHMA IS DEADLY

EMERGENCY DEPARTMENT VISIT & HOSPITALIZATION RATES

6x AFRICAN-AMERICANS

2x NATIVE AMERICANS & HISPANICS

3x CHILDREN YOUNGER THAN AGE 5

1 PERSON DIES EVERY 5 DAYS

ASTHMA IS EXPENSIVE

18,642 EMERGENCY DEPARTMENT VISITS + 4,992 HOSPITALIZATIONS = $100 MILLION ANNUALLY
The impact of Asthma in Wisconsin

Asthma is Disruptive

Among those with Asthma

1 in 2 Adults
1 in 3 Children

Have Uncontrolled Asthma

1 in 2 Adults have Asthma caused or made worse by their job
1 in 4 Adults unable to carry out their work
1 in 2 Children miss school

Asthma is Controllable

Among those with Asthma

30% Adults
42% Children

31% Adults
47% Children

41% Ages 18-49
70% Ages 50+

Have the recommended 2 checkups per year
Receive an Asthma Action Plan from provider
Receive the recommended flu vaccine

Sources:
1 Wisconsin Department of Health Services, Behavioral Risk Factor Surveillance System (BRFSS), 2013 adults and children.
2 Wisconsin Department of Health Services, Inpatient Hospitalization Discharge and Emergency Department Visit Data Files, 2013.
3 Wisconsin Department of Health Services, Mortality Files, 2012.
4 Wisconsin Department of Health Services, BRFSS Asthma Call-back Survey, 2006-2010 adults and children.
SETTING THE STAGE FOR 2015-2020

Between the years 2003-2013, there has been an increase in the number of people with asthma in Wisconsin. However, there have been significant reductions in the rates of asthma hospitalizations and asthma emergency department visits. These reductions also result in significant cost savings.

The Wisconsin Asthma Plan 2015-2020 builds upon the existing WAC successes, programs and partnerships. These accomplishments are detailed in each section of the workplan to set the stage for the next five years.

THE PLANNING PROCESS

The NIH asthma guidelines most recently were updated in 2007 with four components of asthma care including routine health care visits for proper assessment and monitoring, elimination or reduction of environmental asthma triggers, pharmacological treatment, and patient education.

While the guidelines remain stable, health care, public health and technology have changed substantially. The Wisconsin Asthma Plan 2015-2020 is organized into four sections that mirror the current NIH asthma guidelines.

- Routine health care

Partnering with WAC

With the support of the WAC the Chippewa County Asthma Coalition has been able to implement programs with schools, child care centers, clinics and emergency departments. All of this work contributes to decreased rates of asthma emergency department visits and inpatient hospitalizations, thus improving the quality of life for people with asthma.

- Jennifer Lenbom, RN, Chippewa County Department of Public Health
Wisconsin Asthma Plan revision meetings were held with the WAC members and key partners to create the *Wisconsin Asthma Plan 2015-2020*. A draft plan was created and shared for public comment and feedback. Data from the *Burden of Asthma in Wisconsin 2013* were used to drive activities in the plan to reduce asthma disparities.

Listening sessions were held with a wide range of stakeholders including health care providers, local asthma coalitions, health plan representatives and advocacy groups to gather recommendations on the draft plan. Individual comments also were gathered through the *Your Dose of Oxygen* electronic newsletter, the WAC website and partner newsletters.

A final plan revision meeting was held with the WAC partners prior to the 2014 WAC meeting. Participants incorporated collected recommendations into the final plan and prioritized activities.

**IT TAKES A VILLAGE**

As a multifaceted disease, asthma requires a broad spectrum of partners and strategies. We need your help to take control of asthma in Wisconsin.

This plan was created by you, our partners. Please join us as we embrace this plan and work toward improving the lives of people with asthma.

**Implementation**
Identify areas of need within your organization or community and select the corresponding activities in the plan to address those needs. Many of the activities are linked to the [WAC tools and resources](#) that are free for your use. Use the tools and share your experiences.

**Partnerships**
Partner with others in your community to share ideas and resources. If your
community has a [local asthma coalition](#), find out how you can get involved.

**Engagement**
Become a WAC member. The WAC members are encouraged to participate on initiative teams focused on specific projects. Attend the WAC meetings to hear national, state and local speakers who provide tools and resources that you can use.

**Share what works**
The WAC wants to hear what is working in your community in order to share it with others. In addition to the WAC meetings, there are opportunities to highlight your successes and lessons learned in our electronic newsletter, *Your Dose of Oxygen*.

**STRENGTH OF EVIDENCE RATING**

In order to provide information to readers about the strength of supporting evidence for the objectives and activities detailed in this plan, the evidence rating scale on page 19 was developed to provide guidance about the level of scientific support underlying individual components of the plan. The evidence rating scale used in the Wisconsin Asthma Plan 2015-2020 is adapted from the [University of Wisconsin Population Institute’s County Health Rankings and the Wisconsin Nutrition, Physical Activity, and Obesity State Plan 2013-2020](#). Evidence was assessed from scientific studies and observations of unbiased experts. Each strategy in the plan was assigned an evidence rating based on the quantity, quality and findings of relevant research. The most weight was placed on studies with designs that demonstrate causality.
### Evidence rating guidelines

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<th>Rating</th>
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<th>Quality of evidence</th>
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<td>Scientifically supported</td>
<td>• One or more systematic review(s) or • Three or more experimental studies or quasi-experimental studies or • Six or more descriptive studies</td>
<td>Studies have: • Strong design, • Statistically significant positive finding(s), and • Larger magnitude of effect(s)</td>
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<tr>
<td>Some evidence</td>
<td>• One or more systematic review(s) or • Two or more experimental or quasi-experimental studies or • Three-to-five descriptive studies</td>
<td>Studies have: • Statistically significant positive findings, • Overall evidence trends positive, • Less rigorous design, • Smaller magnitude of effect(s), and • Effect(s) that may fade over time</td>
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| Limited evidence, supported by expert opinion | Varies, but generally less than three studies of any type                           | Body of evidence less than “some evidence,” recommendation supported by: • Logic, • Limited study, and • Unclear methods supporting recommendation
Expert opinion recommended by credible groups; research evidence is limited. Credible groups are recognized for their impartial expertise in an area of interest. Further study may be warranted. |
| Insufficient evidence                    | • One experimental or quasi-experimental study or • Two or fewer descriptive studies | Varies, but generally lower quality studies                                                                                                                                                                 |
| Mixed evidence                           | Two or more studies of any type                                                    | Body of evidence is inconclusive, body of evidence leaning negative                                                                                                                                          |
| Evidence of ineffectiveness              | • One or more systematic review(s) or • Three or more experimental or quasi-experimental studies or • Six or more descriptive studies | Studies have: • Strong design, • Significant negative or ineffective finding(s), or • Strong evidence of harm                                                                                             |

For each objective in the plan, a list of supporting publications and corresponding rating categories for these publications are provided.
ROUTINE HEALTH CARE

Setting the stage: Key accomplishments

Asthma focused follow-up visit
The [WAC asthma focused follow-up visit tool](#) was created to assist primary care providers in providing ongoing management of asthma patients based on the NIH asthma guidelines. The tool was initially created in 2007 as a simple algorithm to be used during a primary care asthma visit.

Today, the asthma focused follow-up visit tool provides questions and information that serve as a guide during an asthma follow-up visit. Several WAC members have used the tool to either build new or enhance existing electronic health record systems. The WAC continues to encourage providers to add components not already included in their electronic health record.

The WAC recommends that health care providers use an asthma action plan with asthma patients. Epic, a large electronic health record company located in Wisconsin, will be incorporating an asthma action plan as part of their software upgrade which is expected to be released in 2015. The WAC was able to partner with Epic and provide feedback during the creation process.

Education for primary care providers
From 2002-2009, the Allergist Outreach Asthma Education Program trained more than 1,400 primary care providers and other clinical staff to improve the diagnosis and management of asthma. Significant improvements were documented in severity classification, assessment of dust as a trigger, writing asthma action plans, primary care providers teaching patients, staff teamwork and nurses review of inhaler technique. The program was sponsored by the American Lung Association in Wisconsin, Children’s Health Alliance of Wisconsin, Children’s Hospital of Wisconsin, Fight Asthma Milwaukee Allies, Medical College of Wisconsin, Wisconsin Academy of Pediatrics Foundation, Wisconsin Allergy Society and WAC.

The WAC members and partners have identified a need to again train primary care providers on the NIH asthma guidelines. Children’s Health Alliance of Wisconsin is

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Partnering with WAC
The WAC has provided me with the tools needed to utilize a thorough asthma focused follow-up visit template within my organization’s electronic health record. This helps ensure consistent care for patients as the most important information for all providers is right there at their fingertips.

- Michele Meszaros, RN, MS, CPNP, AE-C, Fox Valley Asthma Coalition, ThedaCare Pediatrics Neenah
managing a new educational program, Improving Outcomes: Practical Asthma Management (PAM), which will begin implementation as part of this new plan.

Emergency department follow up
The WAC completed a needs assessment with 14 emergency departments to identify how asthma was managed. The WAC found varying protocols, services and goals regarding asthma. While all hospitals provide some sort of basic asthma education during an emergency department visit, only 3 of the 14 (21 percent) provide an asthma action plan to their patients. The educational materials and information varies between hospital systems and physicians. Time is the most significant barrier for patients in the emergency department to receive comprehensive education to manage their asthma. The majority of emergency department physicians feel comfortable prescribing a rescue medication, but few are willing to prescribe controller medications. All 14 emergency departments refer patients to follow-up care, but the majority of the time the patient is responsible for following up with their primary care provider. Some of the emergency departments alert the patient’s primary care provider that their patient was seen. However, the process used differs greatly and results in varied outcomes. Based on this information, the WAC felt it was important to implement an assortment of data sharing and system change strategies to increase the number of patients who complete a follow-up visit with a primary care provider after an urgent care visit, emergency department visit or hospitalization.

Workplan

Goal: Increase implementation of current NIH asthma guidelines for optimal diagnosis and management of asthma by health care providers.

Objective A: Implement the WAC asthma focused follow-up visit components to support practice guidelines for health care providers.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Severity and control</td>
<td>2015-ongoing</td>
</tr>
<tr>
<td>a. Promote the use of clinical flow charts to assess severity</td>
<td></td>
</tr>
<tr>
<td>b. Promote the use of validated tools to assess control (e.g., Asthma Control Test (ACT)/Child-ACT, Test for Respiratory and Asthma Control in Kids (TRACK), asthma therapy assessment questionnaire (ATAQ))</td>
<td></td>
</tr>
<tr>
<td>c. Promote inclusion of severity and control assessment within the electronic health record as discrete data elements</td>
<td></td>
</tr>
</tbody>
</table>
2. Asthma action plans
   a. Promote the use of clear, understandable action plans with all asthma patients
   b. Promote components for inclusion in asthma action plans
   c. Identify and/or develop appropriate health literacy terminology and pictures
   d. Promote embedding action plans within the electronic health record for use at each visit

3. Environmental assessment
   a. Promote basic environmental assessments as part of the clinic visit
   b. Promote environmental assessment tool for use by clinic staff (e.g., National Environmental Education Foundation, Physicians for Social Responsibility)
   c. Promote patient education to minimize triggers
   d. Refer patients to community resources (e.g., home nursing, community health workers)

4. Spirometry
   a. Promote the use of spirometry
   b. Promote and/or provide training on performing spirometry and interpretation of data
   c. Promote spirometry guidelines (e.g., American Thoracic Society)

5. Patient and/or family education
   a. Promote educational resources for clinics to use with patients (e.g., Living With Asthma: Families Speak video)
   b. Create and/or promote patient education materials

Evidence rating: Scientifically supported
Basis for evidence rating: 3 systematic reviews (a, b, c); 3 experimental studies (d, e, f)

Objective B: Increase the number of patients who complete a follow-up visit with a primary care provider after an urgent care visit, emergency department visit or hospitalization.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Promote written discharge plan that includes</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Medication use</td>
<td></td>
</tr>
<tr>
<td>b. Follow up with a primary care provider within 1 to 4 weeks</td>
<td></td>
</tr>
<tr>
<td>2. Identify and share successful urgent care, emergency department and hospital protocols, and promote best practices to other systems</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3. Provide training to urgent care, emergency services and hospital staff on appropriate use of the NIH asthma guidelines</td>
<td>2018-19</td>
</tr>
<tr>
<td>4. Promote data sharing between the urgent care, emergency department, hospital and primary care provider to follow up with patients</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5. Promote timely data sharing between the urgent care, emergency department, hospital and health plan case managers, care coordinators and other health care partners</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6. Promote use of the patient-centered medical home model within health systems</td>
<td>Ongoing</td>
</tr>
<tr>
<td>7. Identify and share real-time appointment scheduling models for patients to have a follow-up appointment when leaving the urgent care, emergency department or hospital</td>
<td>As opportunities arise</td>
</tr>
</tbody>
</table>

Evidence rating: Some evidence
Basis for evidence rating: 2 experimental studies (a, b); 3 descriptive studies (c, d, e)

**Objective C:** Increase communication and collaboration to improve asthma management.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create an emergency protocol for use with children who do not have an individual asthma action plan on file at school</td>
<td>2016</td>
</tr>
<tr>
<td>2. Increase awareness of referral opportunities, such as:</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Case managers or care coordinators through appropriate delivery points (e.g., health insurance, community-based organization, hospital)</td>
<td></td>
</tr>
<tr>
<td>b. Certified asthma educators</td>
<td></td>
</tr>
<tr>
<td>c. Disease management companies</td>
<td></td>
</tr>
<tr>
<td>d. Public health nurses</td>
<td></td>
</tr>
<tr>
<td>e. Specialists per the NIH asthma guidelines (e.g., allergist, pulmonologist)</td>
<td></td>
</tr>
<tr>
<td>f. Wisconsin Pharmacy Quality Collaborative</td>
<td></td>
</tr>
<tr>
<td>3. Promote collaboration among health care systems, including exploration of an asthma registry</td>
<td>As opportunities arise</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported  
Basis for evidence rating: 1 systematic review (a)  

**Objective D:** Strengthen partnerships with Wisconsin Medicaid leadership to improve asthma outcomes.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Utilize Medicaid data to build upon successful programming (e.g., home nursing, follow-up visits after an urgent care visit, emergency department visit, hospitalization)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Explore pay-for-performance measures to improve asthma care</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Evidence rating: Mixed evidence (systematic reviews and descriptive studies have mixed results)  
Basis for evidence rating: 2 systematic reviews (a, b); 3 experimental/quasi-experimental studies (c, d, e); 2 descriptive studies (f, g)  


Objective E: Promote the importance of respiratory disease vaccines for asthma management.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maximize access to vaccinations outside of the clinic system (e.g., pharmacies, health departments, schools, workplaces)</td>
<td>2015</td>
</tr>
<tr>
<td>2. Encourage eligible health care providers to become trained to administer vaccines</td>
<td>2015</td>
</tr>
<tr>
<td>3. Partner with the Wisconsin Immunization Registry (WIR) to assist in increasing the number of providers who use WIR to document immunizations</td>
<td>2015</td>
</tr>
<tr>
<td>4. Support efforts to electronically transfer information between WIR and electronic health records</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 2 systematic reviews (a, b); 1 experimental study (c); 2 descriptive studies (d, e)


PHARMACEUTICAL CARE

Setting the stage: Key accomplishments

Unrestricted use of asthma therapies and devices
In 2010, the WAC partnered with the Pharmacy Society of Wisconsin (PSW) to submit a formal request to Medicaid for universal coverage of spacers and valved holding chambers under all Medicaid health plans. The request was granted and now all Medicaid recipients receive coverage for spacers and valved holding chambers.

The WAC submits annual testimony to the Wisconsin Medicaid Pharmacy Prior Authorization Advisory Committee asking for limited restrictions of quick-reliever medications, inhaled corticosteroids, long-acting beta agonists, spacers and valved holding chambers. Few medications have been restricted, marking this as a successful effort.

Prescription assistance
A list of prescription assistance programs was created to help patients in receiving necessary asthma medications. The list is updated annually and will be expanded in early 2015 to include coupons and other programs to assist in medication costs.

Asthma care fax and the Wisconsin Pharmacy Quality Collaborative
The Wisconsin Pharmacy Quality Collaborative (WPQC) is an initiative of the PSW, which connects community pharmacists with patients, physicians and other health care providers, and health plans to improve the quality of life and reduce the cost of medication use across Wisconsin. WPQC partners with a health information technology platform allowing pharmacists to identify eligible patients with asthma (and other chronic health conditions), document pharmaceutical care services provided and bill for the professional time spent caring for the patient.

Partnering with WAC
The partnership the WAC has established with the PSW has greatly benefited patients with asthma in Wisconsin. We worked together to secure payment to pharmacies for spacers and valved holding chambers provided to all Wisconsin ForwardHealth members, rather than a select few. Through this valuable partnership, continued education has helped pharmacists optimize medication therapy in patients with asthma and support pharmacists becoming an integral member of the health care team.

- Erika Horstmann, PharmD, WAC Chair Emeritus, Pharmacy Society of Wisconsin
Workplan

Goal: Increase appropriate use of pharmacologic therapy for asthma management.

Objective A: Improve access and adherence to asthma therapy and management.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continue to be a vocal proponent for unrestricted use of asthma therapies and devices</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Advocate to the Wisconsin Medicaid Pharmacy Prior Authorization Advisory Committee for limited restrictions of quick-reliever medications, inhaled corticosteroids, long-acting beta agonists, spacers and valved holding chambers</td>
<td></td>
</tr>
<tr>
<td>b. Promote cost-saving opportunities for patients (e.g., coupons, rebates, prescription assistance programs)</td>
<td></td>
</tr>
<tr>
<td>c. Advocate for affordable long-term controller medications</td>
<td></td>
</tr>
<tr>
<td>2. Explore and promote patient adherence strategies</td>
<td>2017</td>
</tr>
<tr>
<td>a. Utilize automatic refill texting</td>
<td></td>
</tr>
<tr>
<td>b. Promote evidence-based asthma therapies and medications</td>
<td></td>
</tr>
<tr>
<td>c. Include refill history on outpatient pharmacy-initiated asthma medication refill requests</td>
<td></td>
</tr>
<tr>
<td>d. Refer patients to the Wisconsin Pharmacy Quality Collaborative program</td>
<td></td>
</tr>
</tbody>
</table>

Evidence rating: Limited evidence, supported by expert opinion
Basis for evidence rating: 1 quasi-experimental study (a); 1 descriptive study (b)

b. Warman KL, Jacobs AM, Silver EJ. If we prescribe it, will it come? Archives of Pediatric and Adolescent Medicine. 2002; 156: 673-677.
**Objective B: Encourage appropriate prescribing and patient utilization of asthma medications.**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduce misuse of short-acting beta agonists (SABA) and long-term controllers (overutilization of SABA and underuse of long-term controllers)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Include refill history on outpatient pharmacy-initiated asthma medication refill requests</td>
<td></td>
</tr>
<tr>
<td>b. Increase two-way communication between pharmacy and prescribers (e.g., via Wisconsin Pharmacy Quality Collaborative or electronic health record)</td>
<td></td>
</tr>
<tr>
<td>c. Promote pharmacist involvement in creating asthma action plans</td>
<td></td>
</tr>
<tr>
<td>d. Explore ways to distinguish between rescue medications and controller medications at the point of dispensing</td>
<td></td>
</tr>
<tr>
<td>2. Promote and/or provide guideline-based education focused on appropriate medication prescription for prescribing clinicians</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3. Educate about the importance of asthma medication adherence</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4. Work with Wisconsin Medicaid Drug Utilization Review Board to conduct a review of asthma medications designed to identify high-risk asthma patients and provide additional asthma management services as needed</td>
<td>2016</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 1 systematic review (a); 2 experimental/quasi-experimental studies (b, c); 2 descriptive studies (d, e)


**EDUCATION**

**Setting the stage: Key accomplishments**

**Recertification of asthma educators**
In 2010, a WAC survey found that 42 percent of certified asthma educators in Wisconsin did not intend to recertify. The three primary reasons for not retaking the exam were no longer working in the field, no benefit from being a certified asthma educator and exam cost. The survey results were shared at the 2010 Association of Asthma Educators conference as a poster and published online in the *Journal of Asthma and Allergy Educators*, 27 September 2010.

In 2011, the WAC sent a letter, cosigned by 35 organizations across the nation, requesting the National Asthma Educator Certification board (NAECB) change the recertification process for certified asthma educators (AE-C) from retaking the exam to a new system of utilizing continuing education credits to maintain certification. In 2013, NAECB began offering continuing education credits as a way for certified asthma educators to recertify.

Retention and recruitment of certified asthma educators is an important step as we work toward reimbursement for asthma services. There needs to be a significant base of certified asthma educators that patients can access for services.

**Reimbursement for asthma education**
A Centers for Medicaid and Medicare Services regulation (42 C.F.R. 440.130) became effective January 1, 2014, which allows state Medicaid programs to reimburse for preventive services provided by those professionals that fall outside of the state’s clinical licensure system. These services would have to be recommended by a physician or other licensed practitioner.

The WAC is working with partners from several professional disciplines to explore how this rule could improve asthma care. The initial goal is to educate Wisconsin Medicaid leaders and others on the benefits of implementing this rule, and explore options for the implementation of this regulation in the Wisconsin Medicaid program and other health plans.

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**Partnering with WAC**

*It has been exciting to see the WAC build a national level of influence to ensure a high standard of asthma education through certified asthma educators. This is an important step as we embark on a journey of securing reimbursement for asthma education and prevention services.*

Michelle Mercure, CHES
WAC Vice Chair
American Lung Association in Wisconsin

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Workplan

Goal: Increase education that fosters a partnership among the patient, family, caregivers and clinicians.

Objective A: Support certification for asthma educators.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Promote opportunities for non-clinical educators to gain service hours toward eligibility of the asthma educator credential (AE-C)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Promote opportunities to achieve and maintain asthma educator certification</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3. Increase marketing of certified asthma educators among health care professionals and health care employers (e.g., community health workers, minority and bilingual asthma educators, pharmacists)</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 2 systematic reviews (a, b); 3 experimental/quasi-experimental studies (c, d, e)


Objective B: Secure reimbursement for asthma services.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Partner and work with other organizations and professions to obtain reimbursement for prevention services (e.g., Wisconsin Public Health Association, Wisconsin Association of Local Health Departments and Boards, diabetes educators, community health workers, health educators, school nurses)</td>
<td>2015-ongoing</td>
</tr>
</tbody>
</table>
2. Educate Medicaid and health plan leaders about the importance of comprehensive asthma management services and return on investment opportunities (e.g., payer summit) 2016-ongoing

3. Educate statewide policy and opinion leaders on the role of enhanced reimbursement in comprehensive asthma management 2018

4. Monitor and identify opportunities to develop policy to support enhanced reimbursement in comprehensive asthma management 2019

Evidence rating: Limited evidence, supported by expert opinion
Basis for evidence rating: 1 descriptive study (a)


**Objective C: Promote and provide asthma education.**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Utilize evidence-based practices within existing and/or newly created educational programs</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Incorporate health literacy practices and technology in materials and delivery</td>
<td></td>
</tr>
<tr>
<td>b. Consider local needs, audience and language</td>
<td></td>
</tr>
<tr>
<td>c. Evaluate education programs beyond increase of knowledge (e.g., behavior change, population-based outcomes)</td>
<td></td>
</tr>
<tr>
<td>2. Consider non-traditional asthma education and partners</td>
<td>Ongoing</td>
</tr>
<tr>
<td>a. Implement education delivered by navigators, athletic coaches, tobacco cessation counselors, teachers and others</td>
<td></td>
</tr>
<tr>
<td>b. Expand school-based education to include private schools, charter schools, child care centers and other educational venues</td>
<td></td>
</tr>
<tr>
<td>3. Provide tools and resources that promote the NIH asthma guidelines and health literacy to all educators</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 2 systematic reviews (a, b); 4 experimental/quasi-experimental studies (c, d, e, f); 1 descriptive study (g)
Objective D: Increase public awareness and policy efforts on asthma.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create and implement media messaging incorporating health literacy that partners can use within their own outlets</td>
<td>2015-ongoing</td>
</tr>
<tr>
<td>a. Paid media (e.g., Radio News Network, public service announcements)</td>
<td></td>
</tr>
<tr>
<td>b. Earned media (e.g., letters to the editor, newsletter, public service announcements)</td>
<td></td>
</tr>
<tr>
<td>c. Social media (e.g., asthma apps, YouTube, Facebook, Twitter, text messaging)</td>
<td></td>
</tr>
<tr>
<td>2. Encourage community participation in policy efforts (e.g., school groups, community organizations, environmental groups, individuals)</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported

Basis for evidence rating: 3 experimental/quasi-experimental studies (a, b, c); 7 descriptive studies (d, e, f, g, h, i, j)
ENvironment

Setting the stage: Key accomplishments

WAC school walkthrough
The ultimate goal of the WAC school walkthrough program is to increase school attendance by reducing exposure to environmental asthma triggers found within the school. This program identifies and recommends low- and no-cost solutions to schools. By 2014, the program has been implemented in more than 45 Wisconsin schools, representing more than 18 school districts.

WAC home walkthrough
The goal of the WAC home walkthrough program is to improve the quality of life and management of asthma by reducing environmental asthma triggers found within the home. While this program can be implemented widely, the target is home visitors who can incorporate the program into existing activities. This program identifies and recommends low- and no-cost solutions to individuals and families with asthma. Through mini grant funding, the WAC home walkthrough program has primarily been implemented in Fond du Lac County and the City of West Allis.

WAC child care walkthrough
The goal of the WAC child care walkthrough program is to reduce exposure to environmental asthma triggers found in child care centers. This program was created in 2014 after a Milwaukee-based mini grant project used the WAC school walkthrough program in child care centers. Project staff found that state regulations for child care centers (e.g., sanitation) differ from the information provided in the school walkthrough program. Child care centers also have other areas that need to be considered in a walkthrough (e.g., sleeping areas).

Cleaner Milwaukee Coalition
The WAC participated in the Cleaner Milwaukee Coalition (CMC), a coalition of health partners with WAC
The WAC funding awarded to our district allowed the maintenance person and me to complete the school walkthrough in each of our elementary schools. The program resulted in an increased ability to identify triggers and the strategies to decrease them. For example, we implemented a systematic removal of chemicals that had collected over time. As the school nurse, I developed great relationships with the professionals in the WAC and pediatric specialty care, who provided me encouragement every step of the way. I can’t say thank you enough.

- Valerie Hon, BS, RN, NCSN, Portage School District
advocacy groups, civil rights organizations, faith and grassroots organizations, local service providers and individuals concerned about the health of Milwaukee area families and the community. The CMC believes in a future where all residents of the Greater Milwaukee area equally enjoy clean water, clean air and a healthy environment. The CMC advocated for the conversion of the Menomonee Valley coal-fired power plant to natural gas and the utility agreed to convert by 2016. In January 2014, the Wisconsin Public Service Commission approved the proposed conversion and the process is underway and scheduled for completion in 2016.

Support of tobacco prevention and control efforts
Following the 2010 passage of the Wisconsin smoke-free workplace law, WAC actively participated in activities to support and maintain smoke-free policies. For example, through mini grant funding, the WAC supports education to landlords and property owners about the benefits of voluntary smoke-free policies in multi-unit housing.

Workplan

Goal: Improve environmental control measures to avoid or eliminate factors that precipitate asthma symptoms or exacerbations.

Objective A: Increase implementation of school environmental programs.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
</table>
| 1. Continue implementation of the WAC school walkthrough program  
   a. Maintain partnership with eSchoolCare, Green and Healthy Schools, etc.  
   b. Incorporate school walkthrough into annual school maintenance protocol  
   c. Create recognition program for schools that complete the school walkthrough program  
   d. Expand the target audience (e.g., teachers, janitorial, maintenance staff) | Ongoing |
| 2. Promote U.S. Environmental Protection Agency’s school flag program to alert the community of outdoor air quality | 2015 |
| 3. Provide education on environmental control measures | Ongoing |
| 4. Promote policies that limit exposure to diesel exhaust from school bus idling | Ongoing |
5. Implement the WAC child care walkthrough program  
6. Partner with and encourage parent and teacher organizations or associations to support school environmental programs

Objective B: Increase implementation of home environmental programs.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continue implementation of the WAC home walkthrough program (e.g., home visitation programs, case management)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Support additional home environmental programs that include home assessment and education on trigger control and/or reduction</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3. Support asthma-friendly housing</td>
<td>2019</td>
</tr>
<tr>
<td>a. Outreach to housing authorities and developers</td>
<td></td>
</tr>
<tr>
<td>b. Assess cultural practices and identify the effect on the home environment</td>
<td></td>
</tr>
<tr>
<td>c. Increase neighborhood capacity to address asthma-related housing issues</td>
<td></td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 7 descriptive studies (a, b, c, d, e, f, g)


Objective C: Reduce the burden of asthma in the workplace.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continue surveillance of work-related asthma</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Increase awareness of asthma as an occupational health issue</td>
<td>2017</td>
</tr>
<tr>
<td>3. Integrate asthma education, programs and policies in worksite health, safety and wellness programs</td>
<td>2018</td>
</tr>
<tr>
<td>4. Increase knowledge of asthma-friendly cleaning and sanitation practices</td>
<td>2019</td>
</tr>
</tbody>
</table>

Evidence rating: Some evidence  
Basis for evidence rating: 3 descriptive studies (a, b, c)


Objective D: Reduce exposure to asthma triggers in outdoor environments.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Promote effective environmental educational tools and messaging (e.g., videos, website, apps, media alerts)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Identify and promote evidence-based guidance linking asthma to air quality issues (e.g., wood smoke, outdoor wood-fired boilers, recreational fire, leaf burning, burn barrel hazards) a. Research and share model ordinances and policies b. Educate policy leaders on burning-related health hazards</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3. Identify and promote evidence-based asthma-related messaging on broader transportation and environmental issues of statewide concern</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4. Develop and disseminate guidance on how to respond to air quality alerts (e.g., businesses, general public, media, nursing homes, schools)</td>
<td>2016</td>
</tr>
</tbody>
</table>
Evidence rating: Scientifically supported
Basis for evidence rating: 2 systematic reviews (a, b)

5. Provide support and collaborate with partners on efforts to reduce air pollution and promote clean air through innovative programs (e.g., stove exchange programs, Cleaner Milwaukee Coalition)  

As opportunities arise

**Objective E: Support statewide tobacco prevention and control efforts.**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support smoke-free multi-unit housing efforts</td>
<td>2015</td>
</tr>
<tr>
<td>2. Support tobacco prevention and control efforts on college campuses, parks, beaches and other public open air places</td>
<td>As opportunities arise</td>
</tr>
<tr>
<td>3. Promote smoking cessation in households with persons with asthma</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4. Monitor research and policies related to maintaining smoke-free environments, e-cigarettes and other smoking-related practices</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5. Promote asthma-related messaging of other tobacco products, e-cigarettes and delivery devices (e.g., hookahs) as evidence arises</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6. Support efforts to eliminate marketing tobacco products to children</td>
<td>Ongoing</td>
</tr>
<tr>
<td>7. Support efforts to create smoke-free casinos</td>
<td>As opportunities arise</td>
</tr>
</tbody>
</table>

Evidence rating: Scientifically supported
Basis for evidence rating: 1 systematic review (a)


STAFF

Children’s Health Alliance of Wisconsin
- Alexandria Ceranske, Wisconsin HealthCorps Member
- Tara Goris, MS, Graphic Design and Communication Specialist
- Kristen Grimes, MAOM, MCHES, Senior Project Manager
- Kristen Lunde, Wisconsin HealthCorps Member
- Nicholas Mau, Coalition Coordinator
- Kathy Merchant, Administrative Assistant
- Karen Ordinans, Executive Director

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- Dawn Berney, MPA, Asthma Program Evaluation Specialist
- Stephanie Krueger, Centers for Disease Control and Prevention Public Health Associate
- Cristine Rameker, MPH, Asthma Program Manager
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In order to be successful in making significant change, we need all of our partners. Thank you for all you do to improve asthma management, enhance the quality of life, reduce disparities and prevent asthma-related deaths.

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Taking control of asthma