

TAKING CONTROL OF ASTHMA



CHILD CARE WALKTHROUGH GUIDEBOOK

A healthier environment for children and staff



WELCOME



The Wisconsin Asthma Coalition (WAC) invites your child care center to join us as we take control of asthma.

The purpose of the WAC child care walkthrough program is to decrease asthma symptoms in children by reducing exposure to environmental asthma triggers found within the child care setting.

This guidebook provides comprehensive do-it-yourself instructions to identify asthma triggers in the child care environment and offers low- and no-cost solutions to make your child care setting more asthma friendly.

A special thank you to Kristen Grimes, MAOM, MCHES and Wisconsin HealthCorps members Kristen Lunde, Allie Ceranske and Meng Xiong for their help in developing the WAC walkthrough programs and accompanying resources.

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WHO IS THE WISCONSIN ASTHMA COALITION?



ABOUT THE COALITION

The WAC is an initiative of Children's Health Alliance of Wisconsin, whose mission is to ensure children are healthy, safe and able to thrive. As Wisconsin's voice for children's health, the Alliance raises awareness, mobilizes leaders, impacts public health and implements programs proven to work. The WAC is working to take control of asthma by fostering partnerships to improve asthma management, enhancing the quality of life, reducing disparities and preventing asthma-related deaths.

The WAC guides implementation of the Wisconsin Asthma Plan, a blueprint for addressing asthma in Wisconsin. This plan acknowledges the importance of environmental trigger assessment and education programs for asthma management. The WAC school walkthrough program achieves both of these objectives to prevent asthma flare-ups, increase ability to learn and support academic success.

The WAC is a diverse group, comprised of more than 150 members spanning various professions statewide. **Join us to help Wisconsin take control of asthma.** Become a member of the WAC today for free by signing up at www.chawisconsin.org/wac.



WHAT IS ASTHMA?

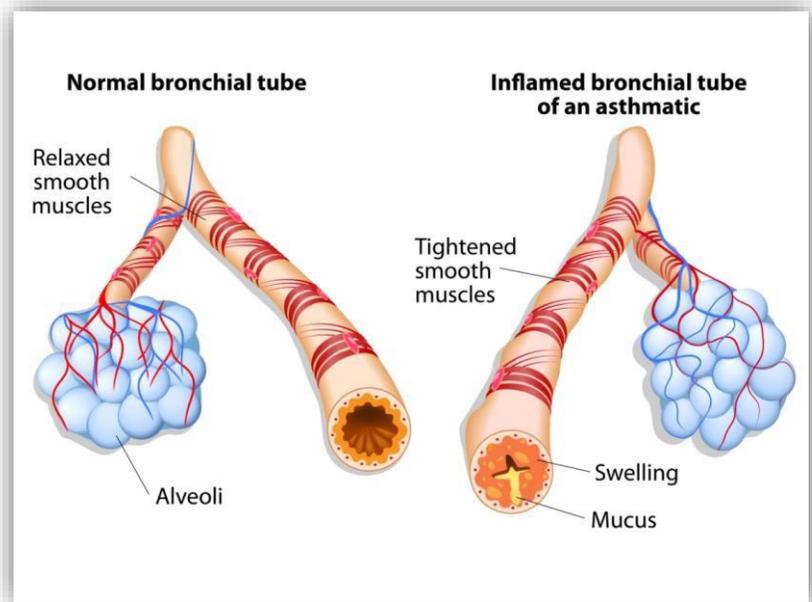


ASTHMA AT A GLANCE

Asthma is a chronic lung disease that cannot be cured, but can be controlled. While we do not know what causes each individual to have asthma, we do know there are four components to effective asthma care. These include routine health care visits, appropriate medication use, patient education and control of environmental triggers.

People with asthma have inflamed, tightened, and mucus-filled airways. An asthma attack (asthma exacerbation) occurs when the airways are irritated by triggers such as irritants, allergens, stress, cold temperatures and exercise.

Asthma symptoms include wheezing, chest tightness, shortness of breath and coughing. People with asthma experiencing symptoms should follow their asthma action plan or talk to their doctor.



ASTHMA IN AN EMERGENCY

When taking care of a child with asthma be aware of signs of an emergency.

Call 9-1-1 if: breathing is hard and fast, ribs are sticking out, or the child experiences trouble walking, talking or sleeping.

WHY IMPLEMENT A CHILD CARE WALKTHROUGH?

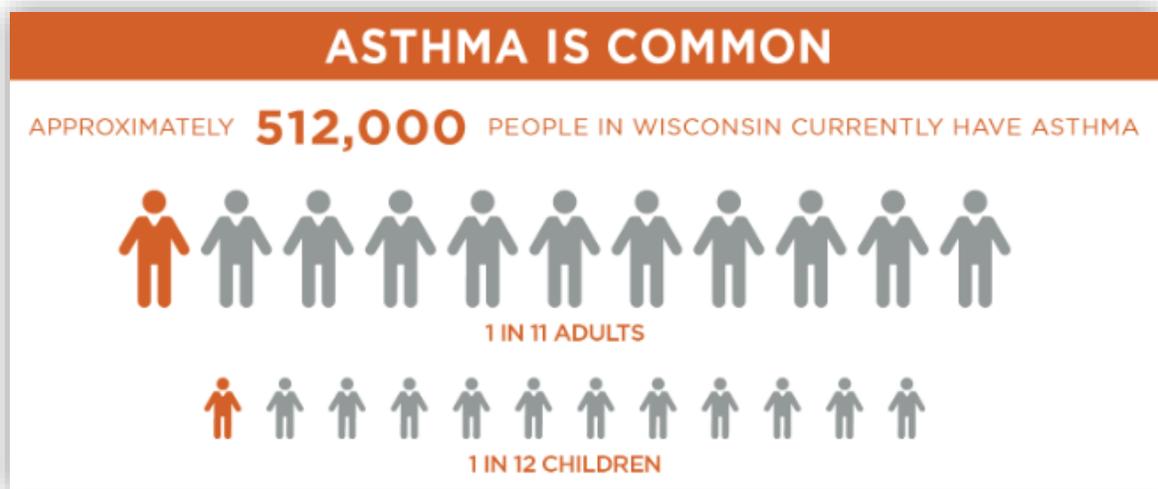


CAUSE FOR CONCERN

Environmental asthma triggers may negatively affect children with asthma. Allergens and irritants in child care settings play a significant role in triggering asthma symptoms. The WAC child care walkthrough program aims to decrease asthma symptoms in children by creating a healthier environment where they can learn, play and thrive.

DID YOU KNOW?

- In Wisconsin, asthma affects 1 in 12 children.
- Asthma is one of the most common chronic diseases in childhood.
- Children younger than age 5 have the highest rates of hospitalization and emergency department visits for asthma in Wisconsin.



WHAT DOES A CHILD CARE WALKTHROUGH ACCOMPLISH?



PROGRAM BASICS

The goal of the WAC child care walkthrough program is to decrease asthma symptoms in children by reducing environmental asthma triggers found within child care settings. This is accomplished by:

- Identifying asthma triggers in the environment.
- Providing low- and no-cost recommendations to eliminate and/or reduce environmental asthma triggers.
- Increasing knowledge and awareness regarding management of environmental asthma triggers.

The walkthrough program focuses on five main asthma triggers typically found in child care centers, as defined by the U.S. Environmental Protection Agency (EPA).

-  Animals
-  Cockroaches and other pests
-  Dust and dust mites
-  Mold, moisture and mildew
-  Smoke and other odors

PROGRAM LOGISTICS

The WAC child care walkthrough program typically takes one to two hours to complete. When implementing a walkthrough with staff, time is spent assessing rooms and recording identified asthma triggers. A report will be sent to the child care center with suggested intervention strategies.

HOW DO I IMPLEMENT A CHILD CARE WALKTHROUGH?



A walkthrough can be completed in three easy steps outlined below!

1) TAKE ACTION

Complete a child care walkthrough

- Become familiar with the five common categories of asthma triggers in child care settings.
- Use the trigger checklist to inspect all rooms of the center.

2) TELL OTHERS

Share the findings

- Record findings on the trigger checklist.
- Share the findings with administrators and/or staff.
- Send out an optional letter to parents and caregivers.

3) MAKE CHANGE

Create a healthier child care environment

- Prioritize and implement recommendations to remove or reduce environmental asthma triggers.
- Set a date for the next walkthrough (walkthroughs should be completed annually).

ENVIRONMENTAL ASTHMA TRIGGER CHECKLIST

1) TAKE ACTION

INSTRUCTIONS

Follow the walkthrough trigger checklist to lead you through the center. If the respective item or issue is identified in a room or area, the room number or room name should be written in the column titled “Where trigger was identified.” Then, follow the recommendations in the right column to make changes toward a healthier environment.

View Appendix I for a comprehensive child care walkthrough checklist.



WAC child care walkthrough checklist

The child care walkthrough checklist is meant to guide you through the center. If the respective item or issue is identified in a room or area, the room name/number should be written in the blank column titled “Where trigger was identified”. Then follow the recommendations in the right column to create a healthier child care environment.

Trigger	Areas of investigation	What to look for	Where trigger was identified	Recommendations
Animals	Classroom pets	Warm-blooded animals such as cats, dogs, rabbits, mice, gerbils, hamsters or birds		Remove animals from child care, if possible; if not, keep animals in cages or localized areas and away from upholstered furniture and carpets
				Always have staff and children wash their hands after playing with a pet
				Acceptable animals include: fish and butterflies
Cockroaches and other pests	Bathroom drain pipes, ceiling, wall/floor edges	Holes, gaps in wall, popped up tiles		Use caulk, a sealant, or metal coverings to seal any holes around metal pipes/walls/ceiling.
	Corners, behind furniture, under sinks, along window sills or in any dark/ wet area	Droppings, dead pests, or traps		Clean affected areas of droppings or dead pests. Develop and implement an integrated pest management (IPM) system. Visit www.chawisconsin.org for more information.

WAC child care walkthrough program- Appendix I Page 1

VISIT our website at www.chawisconsin.org/walkthrough to receive a free guided walkthrough and comprehensive findings report.

HOW TO SHARE THE FINDINGS

2) TELL OTHERS

INSTRUCTIONS

Follow these steps to share your walkthrough findings with your administrators and/or staff.

To accurately reflect the areas needing to be addressed in your child care center:

1. Insert the classroom numbers for which potential triggers were found during your walkthrough onto the trigger checklist.
2. Delete the recommendations that do not apply to your center.
3. Share findings from the checklist with staff and administrators.
4. Prioritize recommendations based on time, impact and available resources.
5. Create an action plan to make positive changes to your center's environment.



VISIT our website at www.chawisconsin.org/walkthrough to receive a free guided walkthrough and comprehensive findings report.

LETTER TO PARENTS

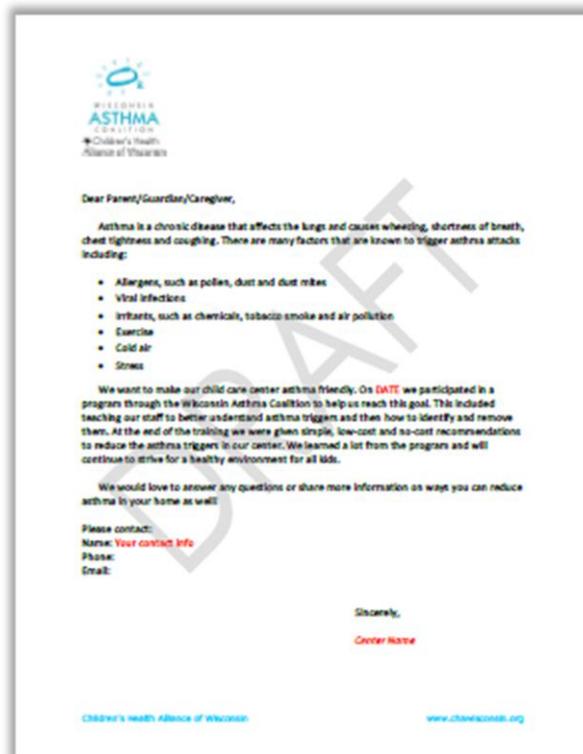
2) TELL OTHERS

INSTRUCTIONS

The WAC encourages child care centers that complete a walkthrough program to share their efforts with parents/guardians/caregivers using the child care walkthrough letter template.

Our template helps create a letter tailored to your center's story. Send this via mail or email to all appropriate audiences.

The letter can be used as a way to increase family involvement. How can parents/caregivers help you promote an asthma-friendly environment? Are there ways the recommendations can be implemented at home? Get creative!



DOWNLOAD the letter to parents from our website at www.chewisconsin.org/walkthrough

ASTHMA TRIGGERS IN THE CHILD CARE ENVIRONMENT

3) MAKE POSITIVE CHANGE

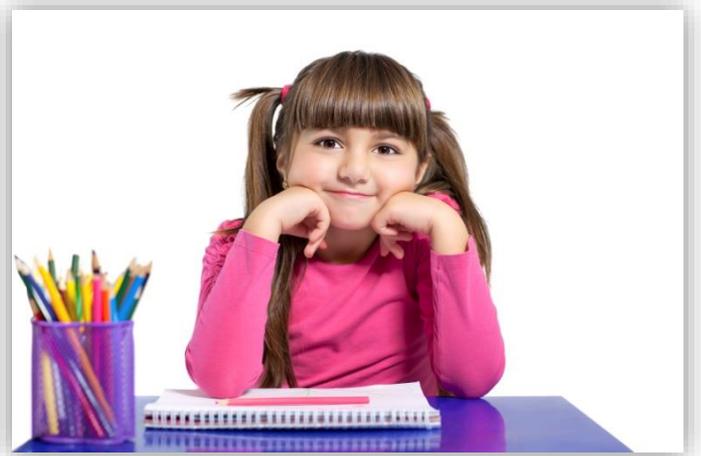
The following pages provide an overview of each asthma trigger, why it poses a problem for people with asthma and options to address each trigger.

According to the U.S. Environmental Protection Agency (EPA), the most common environmental asthma triggers found in child care centers are:

-  Animals
-  Cockroaches and other pests
-  Dust and dust mites
-  Mold, moisture and mildew
-  Smoke and other odors (third-hand smoke)

DID YOU KNOW?

- When people with asthma come in contact with a trigger, it can cause a sudden worsening of symptoms, which is often called an asthma attack, episode, flare-up or exacerbation.
- The American Lung Association defines an asthma trigger as a thing, activity or condition that makes asthma worse.
- Reducing asthma triggers can help kids with asthma breathe easier.



ANIMALS

3) MAKE POSITIVE CHANGE

CAUSE FOR CONCERN

Animals can be effective teaching tools; however, pets can be an asthma trigger. Asthma can be triggered by the skin flakes, urine, feces, saliva and hair shed by warm-blooded mammals.

WHAT TO LOOK FOR

Common classroom pets such as rodents, hamsters, guinea pigs and chicks can trigger asthma attacks.



SOLUTIONS

There are multiple ways to address classroom pets. Recommendations include:

GOOD: Keep animals in localized cages and away from furniture and carpet.

BETTER: Look to alternative pets such as fish and other cold-blooded animals.

- Be sure to keep the tank or habitat well maintained to avoid moisture issues.

BEST: Create a policy restricting warm-blooded pets in your center's facility.

- Take note: pet allergens may remain in the center's environment for a significant amount of time, even after the animal is removed.

COCKROACHES AND OTHER PESTS

3) MAKE POSITIVE CHANGE

CAUSE FOR CONCERN

The waste and saliva of pests contains proteins, which can cause allergic reactions and/or trigger asthma symptoms in individuals sensitive to these allergens. Pest problems in a child care center can be caused by poor management of food preparation, food storage and moisture problems.

WHAT TO LOOK FOR

The presence of pests may not be obvious. Pest droppings, urine, skin, and their decaying body parts are evidence of pests in classrooms. Cardboard boxes and old food that is not disposed of will attract pests.

SOLUTIONS

The best approach to managing pests in the child care environment is to implement an integrated pest management (IPM) system. The key to an IPM is to remove the sources that attract pests instead of relying on pesticides. For more information on how to implement an IPM system visit <https://www.epa.gov/childcare/training-webinars-and-resources-child-care-providers>. Some strategies include:

1. Watching for signs of pests
2. Keeping food, water and garbage contained
3. Removing areas for pests to move and take shelter
4. Using control products such as traps, pesticides and baits only as needed and allowed by law

Toxic chemicals used to manage pests can be harmful to people. Management methods that pose less risk to children and adults in the child care environment should be implemented first.

DUST AND DUST MITES

3) MAKE POSITIVE CHANGE

CAUSE FOR CONCERN

Dust mites are microscopic bugs found in dust that feed on human skin flakes. Dust mites, also called bed mites, prefer warm and humid environments. Dust mite droppings and body parts can trigger asthma. Significant dust mite exposure also may cause asthma in children who have not had asthma symptoms in the past.

WHAT TO LOOK FOR

Dust mites often are found in fabric-covered items such as upholstered furniture, pillows, carpeting and stuffed animals. Dust also collects on hard surfaces such as bookshelves and bins.



DUST AND DUST MITES

3) MAKE POSITIVE CHANGE

SOLUTIONS

Dust and dust mites are the most common environmental asthma triggers found in child care centers. Recommendations for avoiding dust and dust mites include:

- Upholstered furniture:
 - Vacuum and regularly maintain upholstered furniture
 - Consider switching from upholstered furniture to wooden or plastic furniture
- Carpeting
 - Vacuum carpet and area rugs daily
 - Replace rugs with foam, vinyl or plastic mats
 - Consider switching to hard floorings when your center decides to change flooring
- Stuffed animals, pillows, curtains, blankets and fabric cushions
 - Store stuffed animals in closed displays or bins with lids to minimize dust accumulation
 - Once a month wash in hot water (above 130° F) or place in freezer overnight to kill dust mites
- Open bookshelves
 - Dust bookshelves regularly with a damp cloth
 - Utilize baskets to store items
 - Plastic storage bins (preferably with lids)
 - Cabinets with doors
- Clutter
 - Encourage staff members to reduce classroom clutter
 - Keep classrooms neat and organized
- Air vents
 - Regularly dust air vents with a damp cloth
 - Make sure the air vents are not blocked to allow for air circulation

*If nothing else, remember the two D's: **Damp Dust!** Dusting with a wet towel keeps dust from spreading through the air.

MOLD, MOISTURE AND MILDEW

3) MAKE POSITIVE CHANGE

CAUSE FOR CONCERN

Molds are fungi, which grow on moist surfaces. Mold exposure can lead to respiratory issues, allergic reactions and asthma attacks. All types of mold have the potential to be dangerous and moisture is the most important concern when addressing the growth or spread of mold in the environment.

To ensure the safety and health of building occupants, it may be necessary to contact a professional contractor who is qualified to respond to mold and moisture issues. The EPA provides resources relating to mold remediation, which can be found at www.epa.gov/mold.

WHAT TO LOOK FOR

Issues such as leaks in the roof or plumbing, humidity, condensation, and damp or cluttered areas near sinks, appliances and other water sources all can cause excess moisture.

Potential areas in classrooms include, but are not limited to:

- Appliances
- Personal refrigerators
- Plants
- Sinks
- Ceilings and walls

Bathrooms should be inspected for discoloration of pipes and walls near plumbing for signs of water leakages or damage.

Addressing potential problems before mold growth can occur is essential to maintaining low- to no-cost solutions.



MOLD, MOISTURE AND MILDEW

3) MAKE POSITIVE CHANGE

SOLUTIONS

Moisture sources in child care centers vary. Below are recommended solutions for each moisture source. Policies can be utilized to prevent and reduce potential moisture problems.

- Appliances
 - Place appliances away from carpeting
 - Require under bedding to catch any residual water
 - Create a policy prohibiting personal refrigerators and other cooking appliances in the classroom

- Plants
 - Limit the number of plants
 - Use water trays to collect excess water
 - Require regular maintenance of plants
 - Create a policy prohibiting or limiting plants from the center

- Sinks
 - Identify the source of moisture and fix the issue
 - Replace carpeting by sink with hard flooring

- Ceilings and walls
 - Clean mold from surface and dry surface thoroughly
 - Identify source of moisture and fix the issue

- Bathroom facilities
 - Clean bathrooms regularly
 - Eliminate standing water on sinks and floors

SMOKE AND OTHER ODORS

3) MAKE POSITIVE CHANGE

CAUSE FOR CONCERN

Strong odors and scents contain a surplus of concentrated molecules. When breathed in by a person with asthma, the molecules can cause airways to close, and trigger an asthma attack.

WHAT TO LOOK FOR

Strong odors and scents found in child care centers can come from sources such as chemicals, cleaning products, perfumes, cologne, air fresheners and second- or third-hand smoke.



SOLUTIONS

Reducing and eliminating odors requires a multifaceted approach. Policies regulating sources of odors are often the most effective approach. Recommended policies include:

- Restrict and regulate items used in classrooms, such as air fresheners, candles or potpourri.
- Select fragrance-free consumer products, which release limited chemical odors.
- Choose the least-toxic and most environmentally-friendly cleaning products. Consider the time it takes for fumes to dissipate after use.
- Prohibit staff from wearing strong scents at work.
- Prohibit staff from smelling of smoke when at work (third-hand smoke policy).
- Educate families about childhood hygiene.

THIRD-HAND SMOKE

3) MAKE POSITIVE CHANGE

Third-hand smoke is the left over toxic chemicals from cigarette smoke that sticks to everyday items such as carpeting, clothing, furniture, skin, hair and wood. Third-hand smoke also increases risk for cancer, asthma attacks and allergic reactions.

CAUSE FOR CONCERN

Babies, toddlers and children are most vulnerable to the toxic effect of smoke residue because they are closer to these surfaces and often put things in their mouth.

Third-hand smoke is difficult to get rid of, and stays on objects for many years, becoming more toxic over time as it mixes with other air pollutants.

TAKE ACTION

Create a *third-hand smoke policy*: staff and children may not smell of smoke at the child care center.

- If staff do intend to continue to smoke, require smoking to take place outside, 25 feet from the building.
- Require the use of a “smoking jacket” that is only worn while smoking and not near the child, and is kept in a separate closet (or outside) when not in use.
- Require staff to wash hands and mouth after smoking and wait several minutes before having contact with a child.

Other actions include:

- Using a High Efficiency Particulate Air (HEPA) filter for your vacuum and increase laundering of washable items
- Making your centers and transportation vehicles smoke-free zones

AIR QUALITY

3) MAKE POSITIVE CHANGE

WHAT YOU NEED TO KNOW ABOUT AIR QUALITY

Proper ventilation throughout the child care center is an important part of creating a healthier environment for kids with asthma. The EPA provides the following recommendations for ventilation maintenance.

Facilities should have their ventilation systems (e.g., air handlers, univents, air conditioners) inspected annually. Inspections should include intakes and other components.

- Blocked intakes and vents can result in inadequate ventilation. Outdoor univent intakes are usually located close to the ground, so plants and bushes should be cleared in these areas. Inside the room, do not block vents with items such as books, papers, plants or furniture.
- Supply and return air vent grilles should be inspected and cleaned if obstructed with dust.
- The EPA does not recommend cleaning ducts unless there is excessive dust that is compromising performance of the system or being blown onto surfaces. All of the above recommendations should be implemented first before considering cleaning ducts.

The EPA provides a detailed ventilation checklist, along with other resources, which can be downloaded free at www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit.

RESOURCES

3) MAKE POSITIVE CHANGE

The following organizations and resources are helpful for child care centers looking to supplement their walkthrough with additional information or programs.

AirNow

www.airnow.gov

Every day the Air Quality Index (AQI) tells you how clean or polluted your outdoor air is, along with associated health effects that may be of concern. The AQI translates air quality data into numbers and colors that help people understand when to take action to protect their health.

American Lung Association

www.lung.org

The American Lung Association (ALA) has a wide range of resources about asthma on their website. The ALA's *Asthma Basics* course is a free one-hour interactive online learning module designed to help people learn more about asthma. This course is ideal for caretakers who want to learn more about asthma. Register at lung.training/courses/asthma_basics.

Children's Health Alliance of Wisconsin

www.chawisconsin.org

Visit the Alliance website for resources and additional information on WAC and other Alliance initiatives, including emergency care, grief and bereavement, injury prevention and death review, medical home, and oral health.

Dusty the Asthma Goldfish and His Asthma Triggers Funbook

<https://www.epa.gov/asthma/dusty-asthma-goldfish-and-his-asthma-triggers-funbook>

This educational activity book helps parents and children learn more about asthma triggers. Print and share this activity book with parents to get them involved in the care of kids with asthma.

3) MAKE POSITIVE CHANGE

Healthy Child Care

www.epa.gov/childcare

Because of their size, stage of development, and behavior, children are at greater risk than adults for adverse health effects caused by exposure to indoor air pollutants. This site presents providers, parents and government agencies with resources to identify and reduce children's exposure to pollutants that may be present in child care facilities.

Environmental Protection Agency Indoor Air Quality (IAQ) - Tools for Schools

www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit

This program provides guidance to schools and encourages voluntary adoption of IAQ management practices that reduce exposure to environmental contaminants. These tools could also be used in child care centers.

Wisconsin Department of Health Services – Wisconsin Asthma Program

www.dhs.wisconsin.gov/asthma

The Wisconsin Asthma Program conducts asthma surveillance, partners with the Wisconsin Asthma Coalition to implement the Wisconsin Asthma Plan, implements public health interventions, builds local capacity and implements [CDC's EXHALE strategies](#) to improve asthma control and reduce health care costs.

Contents of the WAC child care walkthrough program were based on the following resources.

- Mold Remediation in Schools and Commercial Buildings, United States Environmental Protection Agency, September 2008.
- Banda E. et al. (2013). Exposure to home and school environmental triggers and asthma morbidity in Chicago inner-city children. *Pediatric Allergy and Immunology*: 24:8: 734-741
- Burden of Asthma in Wisconsin. (2020). Wisconsin Department of Health Services. Wisconsin Asthma Coalition, www.chawisconsin.org.
- Sensible Steps to Healthier School Environments, United States Environmental Protection Agency, September 2012.
- IAQ Tools for Schools, Reduce Environmental Asthma Triggers, United States Environmental Protection Agency, www.epa.gov/iaq-schools.

TOGETHER WE CAN TAKE CONTROL OF ASTHMA



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WISCONSIN
ASTHMA
COALITION

★Children's Health
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