

Asthma: A mother's fight against asthma

They never should have told Mary White about the Internet.

They also never should have told her about community meetings and public forums.

The worse thing is that no one should have told Mary White that she has asthma. Or that each of her three children has

the chronic disease.

It's been trouble ever since, not for White and her

children, but for those who want to remain in the dark on a medical problem that has become all too common.

"I'm one of those individuals that needs to know," says White. "I need to get all the knowledge

that is out there and then I have to use that knowledge."

Use it she has.

"Asthma is a very serious disease," she said. "At least here in Boston, we have access to proper medical care. But I've lived in other parts of the country and they just don't take it as seriously."

Asthma-related Emergency Department Visits: Boston 2003

In 2003, the rate for emergency department (ED) visits for asthma by blacks was ten times the rate for Asians, and more than six times the rate for whites

White says she knows firsthand about taking asthma for granted.

"My cousin fell in love with some guy in South Carolina," she says. "Now she knew she had asthma. But she thought it would be all right if she just took her inhaler. Sure enough, she gets down there and has a severe attack."

An ambulance was called, but halfway to the hospital, White's cousin died.

There's one Asthma is a very, very serious thing that White knows for certain living with asthma is an eternal fight, disease. It deterone that requires knowledge, discimines where I live pline and courage. "I was at a and how I live. ,, parent's group meeting and a woman — Mary White

stood up and said that her child had gone through five

inhalers in two months," White said. "Now that should have been a red flag that something wasn't working with the child's medication. People need to know what their child's triggers are. If something is wrong, then they should talk with their doctor and work it out. We shouldn't fear those conversations." To say the least, White doesn't fear talking — or confrontation.

It wasn't that long ago that White had to battle the folks at the Lenox Street housing project where she had lived for more than a decade.

"I have several respiratory issues as well as my children," White said. "So I did a lot of research on medications and treatments. But I never felt quite right just giving my children a lot of meds. And there were always little things that would set one of us on an attack. For some reason, I just couldn't keep it all together."

Something else was wrong.

White later learned that her apartment was loaded with landmines for those suffering from asthma — roaches, mice, mold and mildew.

She wanted — no, needed — to move to another apartment. For whatever reason, the Boston Housing Authority was unable to provide a new unit. What they did do was scrub her apartment walls with bleach and repaint them. It didn't take long, but the mold and mildew came back.

Years went by, and White readily admits she became angry.

"They kept telling me that I couldn't move but I kept telling them that the move was [necessary] because of medical reasons," White said. "They then would say I would have to go to a hearing. All I wanted was for someone to hear my story."

That's when she was labeled a troublemaker.

It was about four years ago, and White had learned — yet again — that the BHA was unable to accommodate her move. "On that very night, my youngest



Mary White, pictured with sons, Verdo (l) and BJ, fought to provide decent housing and medical care for her family.

son had really bad attacks," she explained. "We had to go to Boston Medical Center, and it was awful." That's when she determined that she could no longer live in her apartment.

At that point, White said she began the difficult practice of living at different relatives' and friends' houses to keep her family free of environmental triggers.

She also kept going to meetings and talking about living with asthma. She met Mayor Thomas M. Menino and told her story. She met health officials at Dimock Community Health Center and told her story. A television reporter came over to her apartment and aired a report.

"Hey, if I have to be a troublemaker for my kids, then I'll be a troublemaker," she says. "I'm going to battle for decent *continued to page 4*

Quality care key to living with asthma

As Dr. Christopher Fanta tells the story, there's good and bad news about asthma.

First the good. Asthma is a livable disease.

"It's become so common," Dr. Fanta says. "It's something that so many people and schools and workplaces have to deal with. But it's a livable disease. People with asthma can lead full, active, and even athletic lives."

That's the good news. The bad news is that poorly

tubes, the passageways that allow air to enter and exit the lungs. For those who suffer from asthma, the bronchial tubes become inflamed, causing them to swell and at times to constrict tightly. As part of this inflammation, cells in the tubes may produce thick, excess mucus, further blocking the passageways, making it difficult to breathe. Asthma attacks range from mild to severe, and can result in death.

Typical symptoms of asthma are shortness of



Rate is defined as ED visits for asthma per 1,000 population.

Source: The Health of Boston 2006, prepared by the Boston Public Health Commission, March 2006

controlled asthma can have a huge impact on day-today lives, especially on the parents of children suffering from the disease.

"There's nothing worse or more frightening for a parent than seeing their child gasping for air," Fanta says. "I can't tell you how many parents have had to cancel plans as a result of an unexpected and necessary trip to the emergency room."

Dr. Fanta should know. He co-founded Partners Asthma Center and is its director. He is also co-author of "The Harvard

Medical School Guide to Taking Control of Asthma." "With good medical care," Dr. Fanta says, "the vast majority of people with asthma do very well most of the time. The problem is getting these modern treatments to the people who need them the most."

The cause of asthma is unknown, and there is no cure. This chronic disease impacts the bronchial

People with asthma can lead full, active, and even athletic lives.

- Dr. Christopher Fanta

breath, tightness in the chest, wheezing and coughing. The triggers of an asthma attack are many and

> include dust, animal dander, cockroaches, perfume, tobacco smoke, cold weather, molds, and air pollution.

In the United States alone, roughly 15 million people have asthma, 4 million of whom are children under the age of 15. The disease accounts for half a million hospitalizations, two million emergency room visits, and 5000 deaths a year. Blacks and Hispanics are three times

more likely than whites to be hospitalized for asthma or die from the disease.

By all accounts, the problem is greatest in New England, and particularly in minority neighborhoods throughout the region. Dr. Fanta offered a partial explanation. "The very high prevalence in New

Take charge of your asthma before it takes charge of you

Asthma cannot be cured, but it can be controlled.

Know your triggers and try to avoid them

- Avoid using perfumes.
- Don't smoke, and stay away from those who do. Try to minimize exposure to air pollution.
- Wear a scarf around your mouth and nose when you are outside in cold weather. Doing so will warm the air you breathe in and prevent cold air from reaching sensitive airways.
- Take your medication before exercising. Stop exercising if you start to wheeze.
- Don't eat foods or take medicines that have sulfites. They bother many people with asthma. Sulfites are in wine and may be used on salads in some restaurants to prevent wilting. Sulfites are also found in some processed foods and beverages, including shrimp, mushrooms, potato chips, and dried fruits. Sensitive people need to practice reading labels to confirm content.
- If you are allergic to aspirin, use acetaminophen (e.g. Tylenol) instead.

Make your home allergen-free

- Sleep without a pillow or use the kind your health care provider recommends.
- Use a plastic or "allergen-free" cover on your mattress and pillow (if you use one).
- Wash mattress pads in hot water every week.
- Use throw rugs instead of carpeting.
- Don't use drapes.
- If you can, use a vacuum with a HEPA filter.
 Vacuum and dust often. Wear a dust filter mask when you do.
- Put an electronic air filter in your central heating or air conditioning or use portable air cleaners to keep the air clean.
- Change and/or wash furnace and air conditioner filters regularly. If you use a portable humidifier or vaporizer, use distilled water, not tap water. Clean and dry the appliance after each use.

Manage your disease

- Drink plenty of liquids (two to three quarts a day) to keep secretions loose.
- Recognize your symptoms.
- If your doctor has prescribed a preventive daily medication, take it even when you're feeling well.
- Learn how to use peak flow meters if your health care provider feels it is appropriate.
- Keep your asthma medicine handy. Take it as soon as you start to feel an attack.
- Sit up during an asthma attack. Don't lie down.
- Develop an action plan with your doctor.
- Seek medical care immediately if your symptoms get worse or don't respond to medications.



Health insurance has it covered

According to the Boston Public Health Commission (BPHC), the rates of emergency room visits in Boston for asthma are highest among children younger than five years old. The BPHC also reports that black and Latino Boston residents have higher rates of asthma hospitalization than Asian and white residents. In 2004, the hospitalization rates were three to four times higher for black and Latino residents than for their Asian and white counterparts. National studies have shown that asthma-related mortality rates are especially high among African Americans, at least four times greater than for white Americans.

What may help all Bay State asthma sufferers breathe more easily is to know that all of Massachusetts's health insurers cover the equipment and medicines required to control and treat the disease. Peak flow meters, spacers for inhalers, dual prescriptions for rescue inhalers and other products, such as nebulizers, are almost universally covered. Many insurers also cover asthma management training and education.

To find out more about the coverage your insurance provides contact your health plan.

DEFINITIONS YOU SHOULD KNOW

Asthma:

A condition characterized by the inflammation and narrowing of the bronchial tubes as well as the production of excess mucus. These disturbances cause wheezing, coughing and difficulty in breathing.

Inhaler:

A hand-held portable device that delivers medication directly to the patient's lungs. Some inhalers deliver short-acting medications for immediate relief, while others deliver long-term control medications that are taken on a regular basis.

- **Dry powder inhaler:** An inhaler that releases medication as a dry powder when breathed in rapidly (breath-actuated). The act of inhalation disperses the powder.
- Metered-dose inhaler: 2 An inhaler that generally uses a chemical propellant to push doses of medication out of the inhaler.
- **Rescue inhaler:** An inhaler that delivers drugs called shortacting bronchodilators, including albuterol (Proventil, Ventolin) and pirbuterol (Maxair) ③, which provide immediate relief of asthma symptoms. Those inhalers used to relieve the symptoms of asthma are known as reliever or "rescue" medications and those that reduce the inflammation of asthma are known as controller medications. Inhaled reliever medications are used on an as-needed basis, whereas inhaled controller medications are generally used on a fixed dosage — a specific number of puffs, a specific number of times per day. (American Academy of Allergy, Asthma and Immunology www.aaaai.org)

Nebulizer:

Nebulizers are designed for those who cannot use an inhaler, such as infants, young children and those who are seriously ill. The device works by converting medication into a mist and delivering it through a mask worn over the nose and mouth.

Breathe easier—there is help for asthma.

Asthma is also the leading cause of childhood emergency hospitalization in Boston and the number one cause of school illness and absenteeism in the Boston public school system. At Blue Cross Blue Shield of Massachusetts, we are committed to working with our community to reduce the

number of families affected by asthma.

To learn more about how you can manage asthma, visit AHealthyMe.com or ParaMiSalud.com.



Blue Cross Blue Shield of Massachusetts is an Independent Licensee of the Blue Cross and Blue Shield Association

Peak expiratory flow rate:

The speed with which one can breathe out (exhale), as measured by a peak flow meter. If one has asthma, the peak expiratory flow rate may be used to monitor lung change.

Peak flow meter/monitor:

A hand-held device that measures peak expiratory flow rate.

Spacer: 1

A short tube that attaches to an inhaler to help improve delivery of the medication to the patient's lungs. The spacer acts as a holding chamber to prevent medication from escaping into the surrounding air. This allows a slower, more direct inhalation that increases the amount of medication reaching the patient's lungs rather than being deposited in their mouth or throat.

Triggers:

Allergens, such as pollen and dust mites, or irritants, such as exercise and cigarette smoke, that cause an increase in asthma signs and symptoms.

(These definitions were obtained from the Mayo Clinic's website, www.mayoclinic.com, unless otherwise noted.)

2 BE Healthy

Asthma

Questions & Answers



JudyAnn Bigby, M.D.

Director, Community Health Programs

en's Hospital

Brigham and

1. What do you see as one of the biggest challenges with asthma?

Individuals with asthma often have to adopt different life styles - stopping smoking, avoiding allergens, being vigilant about taking their medications — and this is hard for most individuals. Doctors also don't generally spend enough time educating patients about how to manage their asthma, and research shows that minorities with asthma, especially children, are often not prescribed the most appropriate medications for preventing exacerbations of asthma.

Even when parents and doctors are doing their best to manage asthma, environmental factors can be hard to control. Many schools in urban areas are poorly ventilated, over heated, filled with dust and dust mites, have water damage that leads to mold, and have other environmental hazards. Schools can therefore pose a major challenge to a child with asthma. The home environment can also be challenging if there is a smoker in the house, pets, carpets, poor ventilation and other hazards. Getting landlords to remove asthma triggers is sometimes difficult.

And in spite of all the awareness of asthma, it is underdiagnosed and under-treated. Sometimes the symptoms are not the classic shortness of breath or wheezing, but may be a chronic cough. Studies also show that treatment is not always optimal, especially for minority children who are less likely to be prescribed anti-inflammatory inhalers. All of these factors together make asthma a very challenging illness.

2. Can children with asthma still exercise and engage in competitive sports?

Absolutely. In fact, exercise should be encouraged. Swimming has been found to have definite benefits in improving fitness in asthmatic children. Some studies have also shown improvement in asthma symptoms in children participating in exercise programs.

3. How do you screen for asthma?

A diagnosis of asthma is usually made based on a child's symptoms of wheezing and shortness of breath. Screening for asthma can be done with a test called spirometry, where an individual blows into a tube that is connected to a machine that measures how well air moves in and out of the lungs. In people with asthma it takes longer for air to move in and out of the lungs.

4. Does genetics play a role in asthma?

Asthma does have a genetic or inherited component and often affects people with a family history of allergies.

TRIGGERS

Exposure to various allergens and irritants can initiate the symptoms of asthma and lead to attacks.

1. Alleraens

- Animal dander (feathers and fur)
- Dust and dust mites
- · Cockroaches and mice



In asthma the airways of the lungs, or bronchioles, are inflamed. When exposed to certain irritants, the airways swell. This constricts and impedes the flow of air into and out of the lungs. In addition, cells in the bronchioles often produce thick, excess mucus, further narrowing the passageways, making it difficult to breathe. Asthma is a chronic disease, and cannot be cured, but can be controlled with medication and careful attention to the irritants that trigger symptoms.

Source: National Heart, Lung, and Blood Institute

Healing the racial divide in health care

Signs and Symptoms

Asthma episodes range from mild to severe, and can be frequent or occasional. It's important to recognize the symptoms to prevent or minimize an attack. If you feel an attack coming on, take your "rescue" medications, or follow the action plan developed by your doctor.

Common signs of asthma are:

- Coughing, especially at night or early morning
- Wheezing
- Shortness of breath
- Pain or tightness in the chest

Emergency Symptoms:

If the episode progresses, symptoms can become more severe.

- Extreme difficulty breathing
- Severe wheezing when breathing in and out
- **Difficulty talking**
- Bluish color to the nails
- Tightened chest and neck muscles with each breath
- Flared nostrils
- Sweating
- Feelings of anxiety or panic

Should these symptoms occur, call 9-1-1 or contact your doctor or the emergency room immediately. This is a medical emergency.

Bostonians come in many flavors. But we're working to make health care excellent for everyone.

Boston is rich in ethnic and racial differences. They make our city vibrant.

But when those differences show up in the quality of health and health care, that's a cause for concern. And action.

This is a national problem that Boston shares. Last year, a survey by the Boston Public Health Commission revealed that Boston's racial and ethnic groups have strikingly different risks of illness and death.





program and along with other hospitals agreed to take immediate actions that include:

• measuring the quality of patient care and patient satisfaction by race, ethnicity, language, and education;

• improving education and cultural competence for doctors, nurses and other caregivers, and staff and patients;

• helping patients take an active role in their care; · working to diversity their professional work-

force and governing boards; • collaborating closely with members of the

community.

Pollen, mold and mildew

2. Irritants

- Cigarette smoke
- Air pollution
- Cold weather
- · Strong odors, scented products or chemicals, such as perfumes
- · Stress and strong emotions, or a high level of anxiety

3. Others

- Exercise
- Viral infections, such as the common cold
- Medicines, such as aspirin and beta-blockers (used for high blood pressure)
- Sulfites used in foods and wines
- · Gastroesophageal reflux disease or GERD (a condition in which acids in the stomach back up into the esophagus, causing heartburn)

what it is for white mothers. Black men are twice as likely to die from diabetes as white men.

Latino Bostonians are more likely to be hospitalized for or die from asthma and have a higher incidence of diabetes and HIV. Asian people in Boston have higher rates of tuberculosis and hepatitis B.

Mayor Thomas Menino formed a task force to find ways to eliminate disparities in health and challenged hospitals and community health centers, among others, to take concrete steps to make the quality of health care excellent for all Bostonians.

Brigham and Women's Hospital (BWH) and Massachusetts General Hospital (MGH) provided significant funds for the City's special disparities

BWH established the Health Equity Program to reduce disparities in neighboring communities. The hospital's new Center for Surgery and Public Health will, among other things, examine disparities in surgical care.

MGH created the Disparities Solutions Center to work with providers, insurers and community groups in Boston and nationwide. The hospitals and Partners HealthCare are putting more than \$6 million into finding and fixing disparities in care.

If there's one place where we should all be the same, it's in the excellence of our health care. More information at Boston Public Health Commission at www.bbhc.org

BRIGHAM AND WOMEN'S HOSPITAL



MASSACHUSETTS GENERAL HOSPITAL

The information presented in BE HEALTHY is for educational purposes only, and is not intended to take the place of consultation with your private physician. We recommend that you take advantage of screenings appropriate to your age, sex, and risk factors and make timely visits to your primary care physician.



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housing and proper medical care. I have no problem going to the State House or Dudley Square. If I don't do anything else, I'm going to educate my friends and family and community."

White eventually moved to an apartment in Dorchester. "Asthma is a very, very serious disease," she repeated. "It determines where I live and how I live. It's more than just about medication."

That is an understatement. Her baby boy, Verdo, is nine years old. He suffers from frequent nasal infections, bloody noses and respiratory problems. He has trouble sleeping at night.

Her middle child, Billy, is ten years old. He too has severe respiratory problems. And the oldest son, Jonathan, is 20 and attends Bunker Hill Community College. During high school years, Jonathan played football.

He too was on a mission to educate coaches and nurses that students with asthma need access to medication all the time and, more importantly, a greater understanding that they can participate in sports and other extracurricular activities.

"He's wonderful," White said of her oldest son. "I'm proud of him for changing the mindset of some of his teachers and coaches."

As it is now, White says she can't have candles in her home or air fresheners. She has wooden floors. No carpets. Whenever the pollen count is heavy or one of her children has been playing in fresh cut grass, those clothes must be taken off and washed right away. All shoes are taken off before entering the apartment. Quite naturally, smoking is not allowed.

Opening windows for fresh air is a mixed bag at the White residence. If the pollen count is high, the answer would be no. And, yes, the air conditioner runs every now and then during the winter months.

"I take this thing very seriously," she

said. "If you have seen one of your children gasping for air, you would too."

By the same token, White said she doesn't want to stress out her children. "I want them to ride their bikes and swim and play in the park," she said. "But I know. I know. I just worry."

And reads. There is a steady supply of inhalers and medicines such as prednisone and antihistamines.

"You know those little pamphlets that come with prescriptions?" she asked. "I read every word. If I don't understand how this drug will react to another drug, I call the pharmacist. I take notes. I want to learn. I want to keep my mind open. A lot of people are at their wit's end. But not me. I got some empowerment going on here."



Jonathan White taught coaches and teachers how students with asthma can be active and play sports.

NO INSURANCE? NO DOCTOR?

Call the Mayor's Health Line. 617-534-5050 or 800-847-0710

Monday – Friday 9AM to 5 PM

See "Buster Has Asthma"

An interactive play, part of the "Kids with Asthma Can..." campaign, sponsored by the Boston Public Health Commission, WGBH, Children's Hospital Boston, Boston Children's Museum, and Boston Public Library.



Date	Organization	Address	Time	Tel. Number
1/9	Mattapan Branch Library	10 Hazelton St., Mattapan	6:00 PM	617-298-9218
1/24	South Side Head Start	19 Corinth St., Roslindale	10:00 AM	617-327-1152
1/25	Codman Square Library	690 Washington St. Dorchester	6:30 PM	617-436-8214
2/22	Dudley Branch Library	65 Warren St., Roxbury	7:00 PM	617-442-6186
2/23	Franklin Pk. Dev. Tenants Assoc.	162 Seaver St. Dorchester	10:00 AM	617-650-0160
3/6	South End Branch Library	685 Tremont St., Boston	5:30 PM	617-536-8241
3/7	Mattapan Head Start	535 River St., Mattapan	9:00 AM	617-298-1785

The schedule is subject to change. Please call to confirm times and dates.

Is your home making you sick? Is your child afraid to exercise because of asthma?

The Asthma Prevention and Control Program of the Boston Public Health Commission has the answers. Call (617) 534-5966. Below are Free Asthma Programs and Information

Program	Eligibility	Services
Healthy Homes	Adults and children with asthma	Home inspection, asthma education
Boston Asthma Swim	Children 8-12 with asthma	Free swimming lessons and asthma education
Boston Asthma Summer Program	Children 7-12 with asthma	Sports and swimming, asthma education
Boston Asthma Games	Children with asthma and their siblings	Games, sports, swimming held on June 2, 2007

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England could reflect our ability to detect cases — and report them," he said.

One thing is clear. In Boston, the highest asthma rates are found in Roxbury, Dorchester, Mattapan, Jamaica Plain, and the South End.

In 2003, asthma accounted for over 6,500 emergency department visits at a rate of 11 visits per 1,000 population, as reported in "The Health of Boston 2006," published by the Boston Public Health Commission. The rates were higher for males, blacks, and residents of Roxbury. Likewise, children under the age of five experienced the highest rate of visits, exceeding the next highest category — children between five and 17 — by more than 200 percent.

Emergency department visits for asthma by race are alarming. In 2003, the rate of visits by blacks was ten times higher than that for Asians, six and a half times greater than that for whites, and 38 percent higher than that for Latinos. Blacks and Latinos constituted almost 75 percent of all emergency department visits for asthma, further demonstrating the prevalence and severity of the disease among minorities. Similarly, rates for hospitalization were higher for children under the age of five and residents of Roxbury. Boston has double the statewide average of hospitalizations for asthma for children age five years and younger. In 2004, Latinos experienced a slightly higher rate of hospitalization for asthma than blacks, but both groups were three times more likely to be hospitalized than Asians and whites.

making asthma worse, like air pollution, and things that may cause people to develop asthma in the first place.

"There is no question that air pollution is a problem," explains Dr. Fanta, "that if a bus is parked outside of your window and it is revving its engine with all the diesel fumes blowing in the air, that is not good for your breathing, especially if you have asthma."

But many have tried to link the rising number of reported asthma cases

with an increase in global air pollution. "It's not that simple," Dr. Fanta said. "The rising prevalence of asthma is not due to an increase in air pollution in the world. But if you have asthma and live in a polluted environment, it does The study revealed that, during the 2004-2005 school year, a high percentage of Boston public schools had environmental conditions that are known to trigger asthma attacks. Eighty-five percent had water leaks, 63 percent had overt signs of mice, while over one-third had visible signs of mold. Furthermore, it was discovered that schools with the highest percentage of environmental problems also had a higher percentage of children with asthma.

Most striking was the Harvard Kent Elementary School in Charlestown, where almost 63 percent of the rooms inspected showed water stains. Another troublesome building was the James Curley Elementary School in Jamaica Plain, where roughly 61 percent of all rooms inspected showed Quick relief may be found in albuterol or other short-acting bronchodilators, while other medications taken daily, such as a corticosteroid inhaler or a leukotriene blocker (examples include Flovent and Singulair), offer long-term control of symptoms. For those with strong allergies as well, over-the-counter medicines, such as histamines and decongestants can be helpful.

The way it works, Dr. Fanta explains, is that some patients with asthma have their asthma made worse by allergies, but others do not. Allergies can also cause sneezing, a stuffy or watery nose, and tearing eyes. Allergies and asthma are two distinct, but closely related medical conditions and, for those who have both, treating their allergies can greatly help their asthma.

Confusing as it may be, Dr. Fanta has one clear recommendation. "Asthma doesn't go away when your symptoms go away," he said. "You still have asthma even when you feel well. You still have vulnerable bronchial tubes. If you are at the wrong place at the wrong time, you are very susceptible to having an attack. So the best strategy is to take preventive medicine everyday." Measures designed to prevent symptoms are a little more complicated. "The approach is to reduce the exposures to asthma triggers in the home, school or workplace and to take preventive medicines," Dr. Fanta said. Even that has good news. "The law is on your side," Dr. Fanta said. "Under the American with Disabilities Act, the right to breathe is protected and schools and workplaces must make every effort to improve their environments."

Some of the causes are environmental, but Dr. Fanta distinguishes between factors

make things worse."

All too often, the polluted environments are at schools.

In Boston, asthma is

the most common illness

of public school children and a common reason for missed days at school and frequent visits to the school nurse, according to a study produced last March by the Massachusetts Coalition for Occupational Safety and Health (MassCOSH) and the Boston Urban Asthma Coalition (BUAC).

MassCOSH is a non-profit organization that coordinates the Mass Healthy Schools Network, which promotes environmentally safe and healthy schools. BUAC serves as a clearinghouse and network to address the asthma crisis in low-income neighborhoods.



Christopher H. Fanta, M.D. Director, Partners Asthma Center

overt pest signs. Both these schools have asthma rates of 12.25 and 10.69 percent, respectively, significantly higher than the estimated city

average of seven percent.

For parents, the problem is complicated, especially for working class families. "If a child has a serious episode," Dr. Fanta says, "then that probably means they'll miss school and a parent will need to take off from work to get the child to a medical provider and stay home with them after the visit."

The solutions are multifaceted, and should be placed in two broad categories. The first are treatments designed to relieve symptoms or treat flare-ups. The second are measures designed to prevent symptoms.

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