NAESP CLEAN AIR FOR KIDS SPONSORSHIP PROGRAM TO IMPROVE THE INDOOR AIR QUALITY IN SCHOOLS AND DAYCARES

Clean Air for Kids Program Mission & Goals

CAFK Mission

The CAFK Program mission is to help schools find the funding needed to acquire and operate classroom air filtration systems proven to significantly reduce airborne allergens, particulates, toxins and odors. Healthier indoor air quality provides many health and economic benefits to the teachers, students and families. We focus on helping inner city and rural schools serving low-income students where funding is most needed. These school buildings are typically the oldest and have the most IAQ problems.

Goals and Benefits

- Reduce Absenteeism and Asthma
- Reduce Presenteeism (Sick at School)
- Reduce Spread of Illnesses
- Reduce use of Allergy/Asthma Medications
- Lower Sick Day Costs to Families
- Lower Healthcare Costs
- Lower Health Insurance Cost Increases
- Lower Medicaid Costs to States and Federal Government
- Healthy Classroom IAQ Helps Schools Recruit and Retain Quality Teachers
- When Teachers and Students Feel Better, Students Learn More and Test Higher.
- Lower Costs for Heating and Cooling

Goal of This Presentation

The goal of this presentation is to tell you why you should consider providing grant money or donations to the NAESP Clean Air for Kids Grant Program.

Our goal is to raise $30 million over the next five years to help equip more than 12,000 classrooms for the benefit of 312,000 students and teachers. The cost is only about $20-$30 per person per year in most schools, with a payback projection of more than 25 times the costs!

- What Causes Poor School IAQ
- How Proven Technology Helps
- How We Measure Success
- Amount of Funds Needed
- How NAESP Distributes the Grants

NAESP Provides Grants to the Schools

- The NAESP-CAFK Program solicits money from donors for many, many schools who have applied for these grants.
- Donors provide the funds to the NAESP and receive the tax-benefits of donating to a 501c3 Non-Profit.
- NAESP collects grant requests from interested schools who have a need, but do not have any funding in their budgets.
- The NAESP-CAFK Board selects schools based on a fair distribution program so schools receive the funds needed to purchase, install and operate the clean air solutions in their classrooms.

There Are So Many Schools That Need Your Help

1. NAESP-CAFK Program constantly invites new schools and school districts to apply for our funding service.
2. The total funds NAESP-CAFK seeks is increasing as more schools understand the benefits of healthier classroom air quality and sign up for funding help.
3. Corporate Sponsors receive a significant amount of positive recognition through a variety of publicity programs including printed materials, website acknowledgements, take-home hand-outs sent to families, in-school Certificates of Appreciation displays and in Press Releases. This program is promoted in all print, broadcast and electronic media formats.

Funding Sought Per Student

- We raise enough funds to equip each classroom, about $1,500 or about $50-$75 per student in the first year.
- In years 2 – 5 we seek about $200 per classroom or ONLY $8 per student per year.
- We raise about $150 to $200 per student total to cover the first five years, or only about $30 to $40 per student per year on average.

What The $30-$40 Per Student Can Do

The NAESP Clean Air for Kids Program managers believe the benefits of this investment will produce both short and long-term health and financial benefits for teachers, students, parents, employers, health insurance companies, state provided health insurance for children and the school district's budget.

The financial value of the payback is estimated to be more than $25 for each $1 of cost.

Why Cleaner Indoor Air is So Important

- Asthma is the Number One Chronic Illness for Children
- IAQ Drives Respiratory Health for Students and Teachers
- Contagious Illness Risks are More Significant Than Ever Before
- Health Care Insurance Costs Are Reaching Crisis Levels
- Inhalers are the Number One Children's Medicaid Prescription

Students with Asthma Pose New Liabilities for Schools

Jury Awards $9 Million in Asthma Death at School

A California jury that unanimously awarded a mother $9 million in damages for her 11-year old son's fatal asthma attack at school found the school district guilty of negligence for failing to inform parents of an unwritten school policy that would have allowed the child to carry an inhaler.

Gonzalez vs. Hanford Elementary School District, Nos. F033659, F034555, (Super. Ct. Nos. 0031 & 1109). June 2002.

Judge Awards $1.6 Million for Slow Asthma Attack Response

In 1996, a court found the school's principal, guidance counselor, and the Orleans Parish school board negligent in the death of an 18-year old New Orleans schoolgirl, according to a report in the May 29, 1996, issue of *Education Week.* Katrina Lewis died when a call to 911 was delayed because of efforts by the school counselor to contact her mother, as directed by the principal. Lewis alerted a school security guard when her inhaler was ineffectual in controlling her asthma attack. The judge found the school principal and counselor negligent in providing emergency medical response, and required the school's insurance to pay the family $1.4 million in damages. The judge found the school board negligent for failing to provide adequate training for school administrators and fined them $200,000.

School Governance & Leadership AASA Publication: http://www.aasa.org/uploadedFiles/Resources/files/SGL_spring03.pdf

Buildings With Mold Pose New Liabilities for Schools

- **Mold Makes Students Sick, Teacher Sues**

  Lawyers and Settlements.com: http://www.lawyersandsettlements.com/features/environment-school-mold.html

March 16, 2008, *Suffolk, VA:* A fourth-grade teacher for Booker T. Washington Elementary School in Suffolk filed a lawsuit with the assistance of her lawyer that accuses the city and the school of failure to address the *dangerous levels of mold* within the school. She alleges that the mold problem at the elementary school has made her and some of her students ill. The damages she seeks are in the amount of 2.5 million. However, both Hood and her lawyer states that they do not want to bring panic to the parents of the students.

- **Fla. parents sue school district over mold problem.**

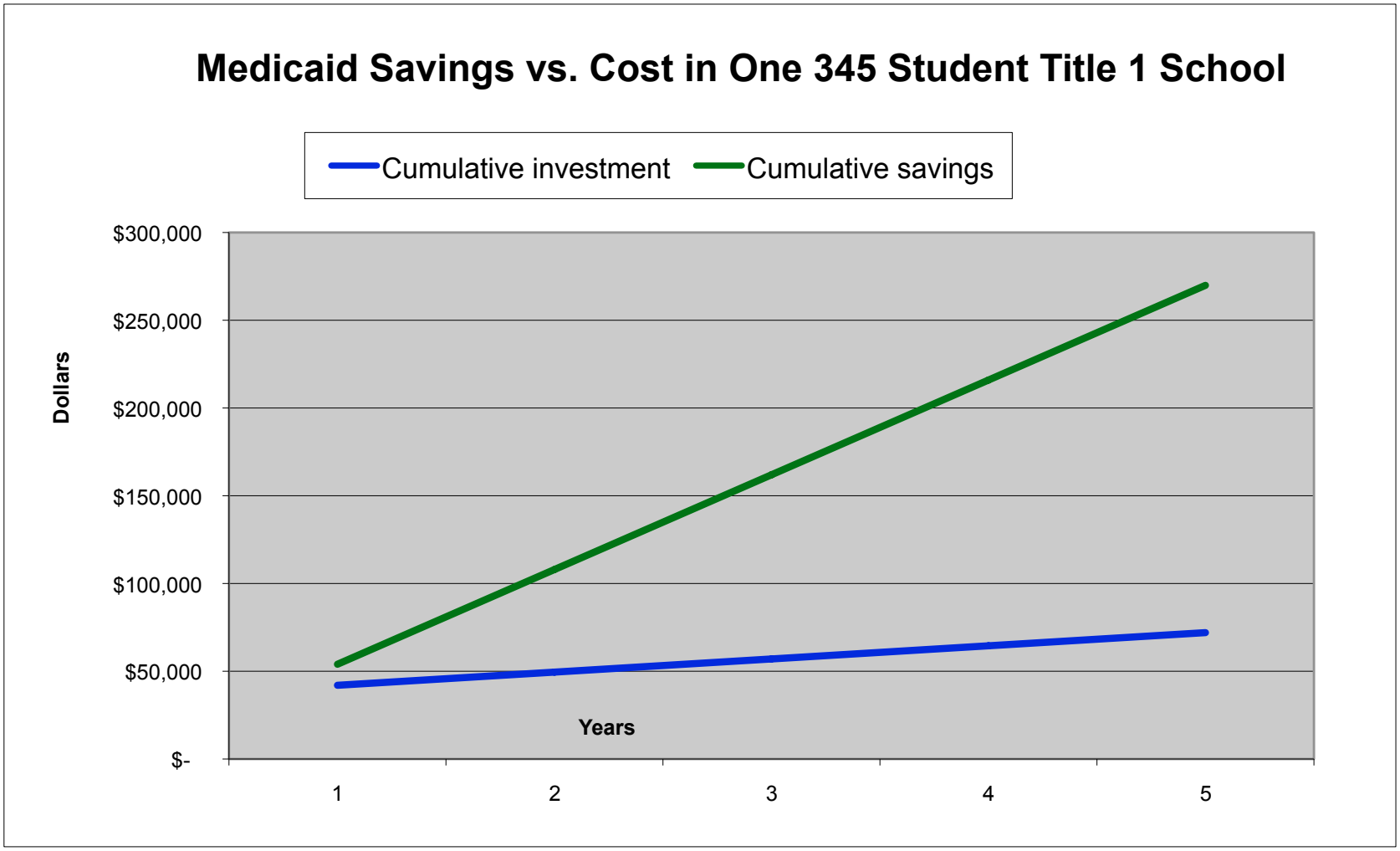
  Publication: South Florida Sun-Sentinel (via Knight-Ridder/Tribune News Service) Publication Date: 19-SEP-03

  After years of watching her son suffer from severe symptoms _ vomiting in class and at home, having to endure 78 allergy injections, 22 prescribed medications, CAT scans and two surgeries to drain his sinuses. Cara Aliseo finally pulled him out of his mold-plagued elementary school.

  He's been healthy ever since, she said.

  On Friday, Aliseo spoke out about the mold problems as one of 18 parties to file lawsuits against the Broward County (Fla.) School District.

Our Program Saves Medicaid Costs



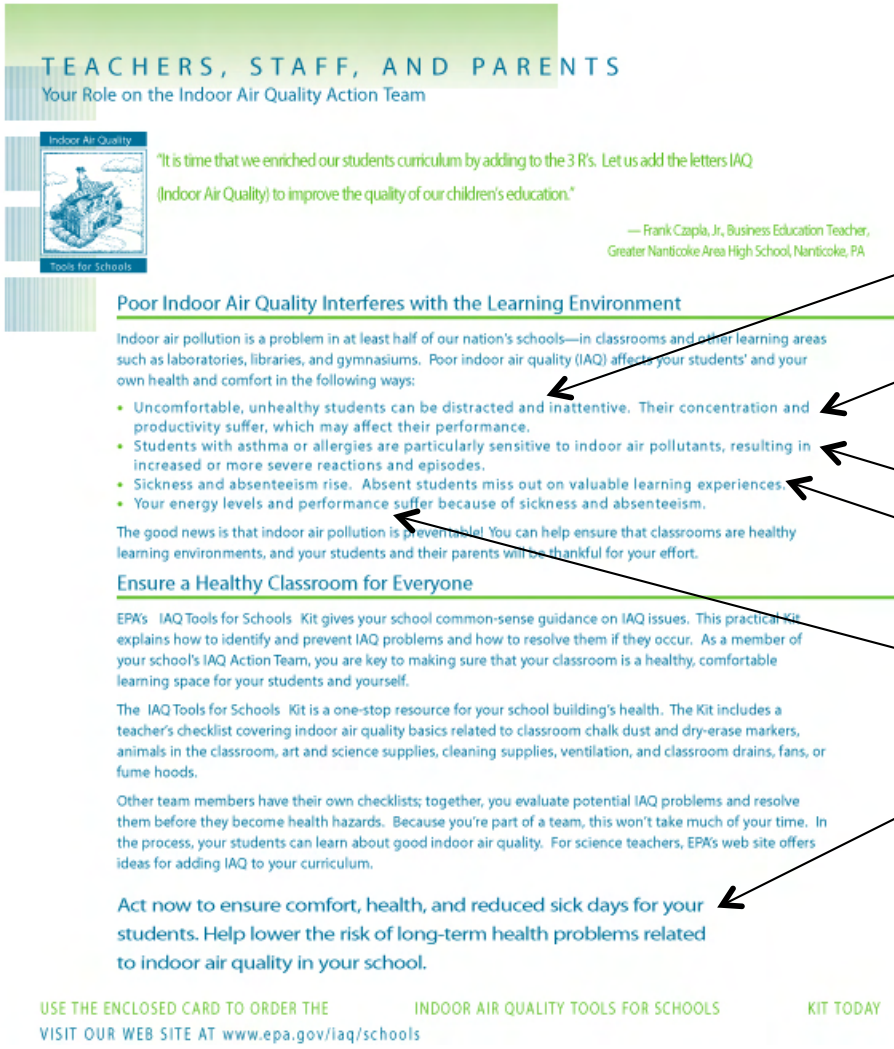
In 2009 the ADA Laws Started to Cover Asthma Disabilities

Starting in 2009, the ADA Act of 1990 was modified with the Amendments of 2008 to include Asthma as a disability that can require the facility to be modified with special accommodations to allow the disabled person to go to work or school without the mitigating benefits of Asthma medication. Improving classroom air quality is a potential way to improve the situation for someone with Asthma

Teachers' Number One Complaint is Poor Indoor Air Quality

The United Federation of Teachers receives more complaints from its members about poor indoor air quality in schools than about any other health and safety issue.

EPA Position on IAQ in Schools



TEACHERS, STAFF, AND PARENTS

Your Role on the Indoor Air Quality Action Team

Indoor Air Quality

Tools for Schools

"It is time that we enriched our students curriculum by adding to the 3 R's. Let us add the letters IAQ (Indoor Air Quality) to improve the quality of our children's education."

— Frank Czapla, Jr., Business Education Teacher, Greater Nanticoke Area High School, Nanticoke, PA

Poor Indoor Air Quality Interferes with the Learning Environment

Indoor air pollution is a problem in at least half of our nation's schools—in classrooms and other learning areas such as laboratories, libraries, and gymnasiums. Poor indoor air quality (IAQ) affects your students' and your own health and comfort in the following ways:

- Uncomfortable, unhealthy students can be distracted and inattentive. Their concentration and productivity suffer, which may affect their performance.
- Students with asthma or allergies are particularly sensitive to indoor air pollutants, resulting in increased or more severe reactions and episodes.
- Sickness and absenteeism rise. Absent students miss out on valuable learning experiences.
- Your energy levels and performance suffer because of sickness and absenteeism.

The good news is that indoor air pollution is preventable! You can help ensure that classrooms are healthy learning environments, and your students and their parents will be thankful for your effort.

Ensure a Healthy Classroom for Everyone

EPA's IAQ Tools for Schools Kit gives your school common-sense guidance on IAQ issues. This practical Kit explains how to identify and prevent IAQ problems and how to resolve them if they occur. As a member of your school's IAQ Action Team, you are key to making sure that your classroom is a healthy, comfortable learning space for your students and yourself.

The IAQ Tools for Schools Kit is a one-stop resource for your school building's health. The Kit includes a teacher's checklist covering indoor air quality basics related to classroom chalk dust and dry-erase markers, animals in the classroom, art and science supplies, cleaning supplies, ventilation, and classroom drains, fans, or fume hoods.

Other team members have their own checklists; together, you evaluate potential IAQ problems and resolve them before they become health hazards. Because you're part of a team, this won't take much of your time. In the process, your students can learn about good indoor air quality. For science teachers, EPA's web site offers ideas for adding IAQ to your curriculum.

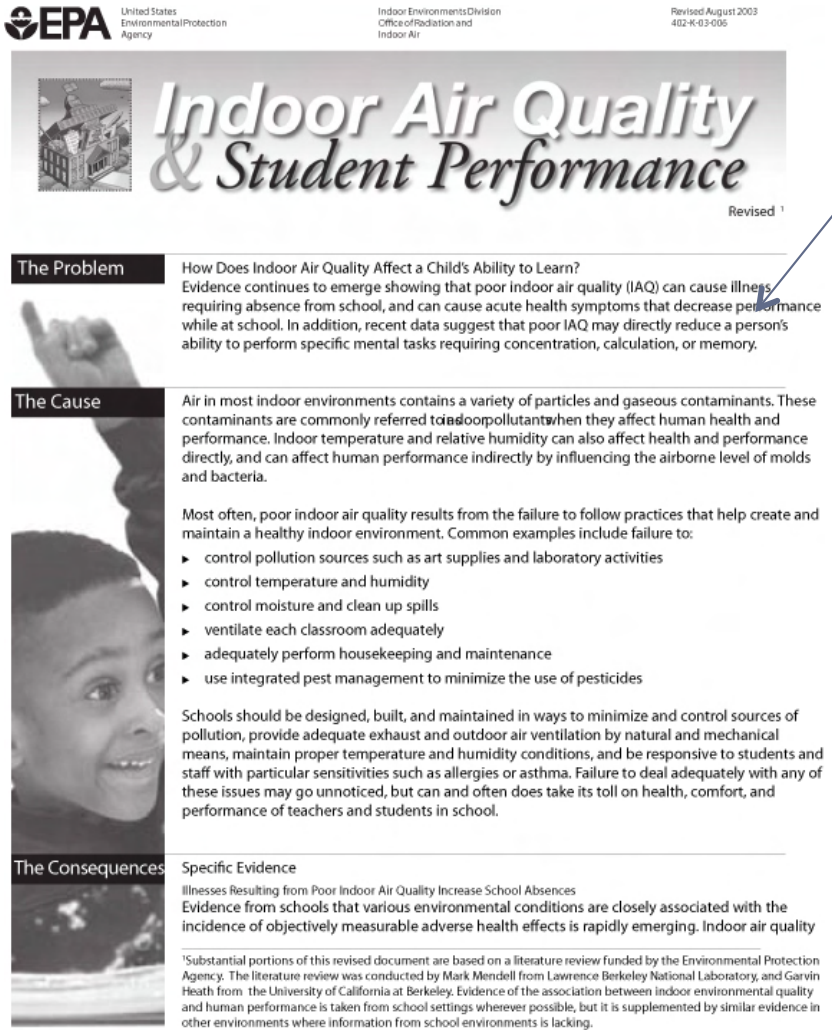
Act now to ensure comfort, health, and reduced sick days for your students. Help lower the risk of long-term health problems related to indoor air quality in your school.

USE THE ENCLOSED CARD TO ORDER THE INDOOR AIR QUALITY TOOLS FOR SCHOOLS KIT TODAY

VISIT OUR WEB SITE AT www.epa.gov/iaq/schools

- "poor indoor air quality is a problem in at least half our nation's schools."
- "uncomfortable, healthy students can be distracted and inattentive, concentration and productivity suffer, it effects their academic performance."
- "Students with allergies and asthma suffer"
- "sickness and absentee rates rise, absent students miss out on key learning experiences"
- "Teacher's energy levels and performance suffer because of sickness and absenteeism."
- 'Better indoor air quality can lower the teacher's risk of long term health problems."

EPA States Poor IAQ Impacts Learning



EPA United States Environmental Protection Agency | Indoor Environments Division Office of Radiation and Indoor Air | Revised August 2003 402-K-03-006

Indoor Air Quality & Student Performance

Revised [1]

The Problem

How Does Indoor Air Quality Affect a Child's Ability to Learn?
Evidence continues to emerge showing that poor indoor air quality (IAQ) can cause illness requiring absence from school, and can cause acute health symptoms that decrease performance while at school. In addition, recent data suggest that poor IAQ may directly reduce a person's ability to perform specific mental tasks requiring concentration, calculation, or memory.

The Cause

Air in most indoor environments contains a variety of particles and gaseous contaminants. These contaminants are commonly referred to as indoor pollutants when they affect human health and performance. Indoor temperature and relative humidity can also affect health and performance directly, and can affect human performance indirectly by influencing the airborne level of molds and bacteria.

Most often, poor indoor air quality results from the failure to follow practices that help create and maintain a healthy indoor environment. Common examples include failure to:

- control pollution sources such as art supplies and laboratory activities
- control temperature and humidity
- control moisture and clean up spills
- ventilate each classroom adequately
- adequately perform housekeeping and maintenance
- use integrated pest management to minimize the use of pesticides

Schools should be designed, built, and maintained in ways to minimize and control sources of pollution, provide adequate exhaust and outdoor air ventilation by natural and mechanical means, maintain proper temperature and humidity conditions, and be responsive to students and staff with particular sensitivities such as allergies or asthma. Failure to deal adequately with any of these issues may go unnoticed, but can and often does take its toll on health, comfort, and performance of teachers and students in school.

The Consequences

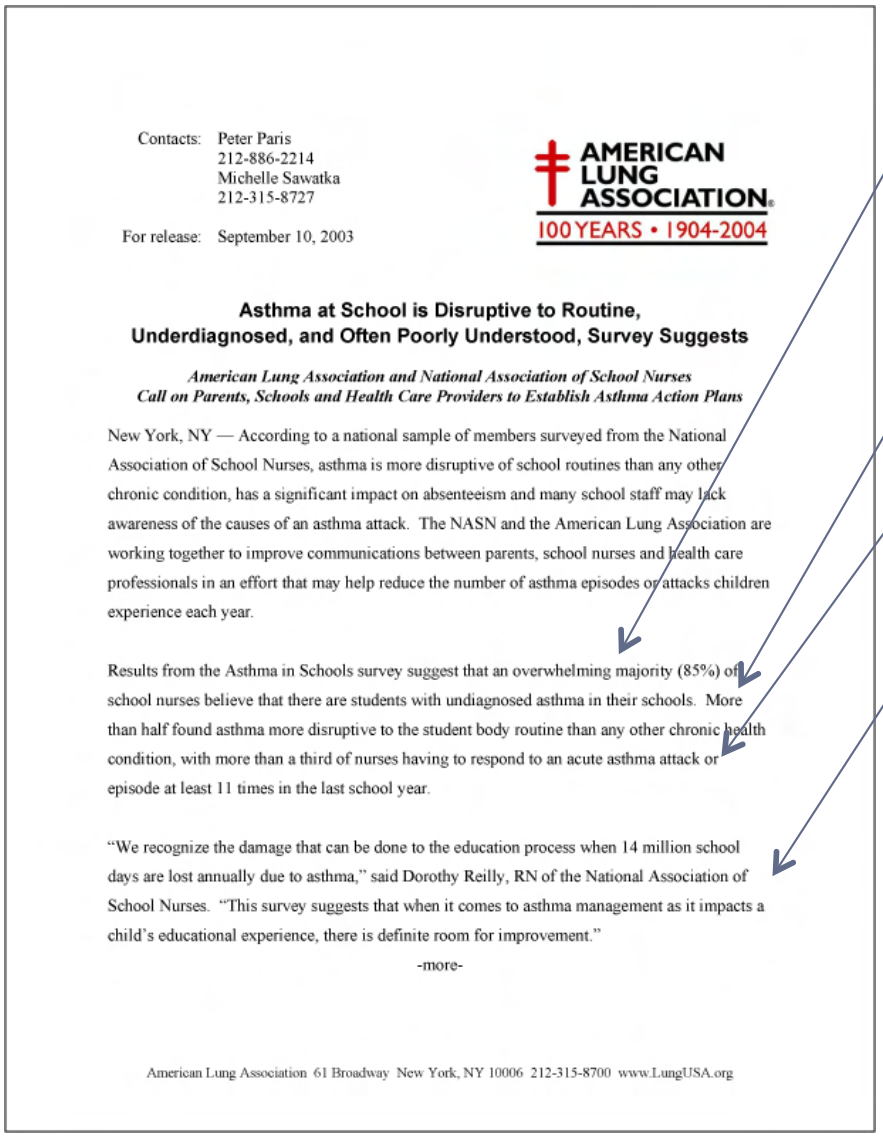
Specific Evidence

Illnesses Resulting from Poor Indoor Air Quality Increase School Absences
Evidence from schools that various environmental conditions are closely associated with the incidence of objectively measurable adverse health effects is rapidly emerging. Indoor air quality

[1]Substantial portions of this revised document are based on a literature review funded by the Environmental Protection Agency. The literature review was conducted by Mark Mendell from Lawrence Berkeley National Laboratory, and Garvin Heath from the University of California at Berkeley. Evidence of the association between indoor environmental quality and human performance is taken from school settings wherever possible, but it is supplemented by similar evidence in other environments where information from school environments is lacking.

- "Poor IAQ may directly reduce a person's ability to perform specific mental tasks requiring concentration, calculation, or memory."
- EPA cites 67 studies on the negative impact of IAQ on Student Performance and Grades
- Cleaner air quality on test day alone can boost scores 2-6%.
- UCLA study shows students in schools with the worst indoor air quality scored 11% to 17% lower on standardized tests than those in schools with the best air quality.

NASN Says Asthma is a Big Problem



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AMERICAN LUNG ASSOCIATION
100 YEARS • 1904-2004

Asthma at School is Disruptive to Routine, Underdiagnosed, and Often Poorly Understood, Survey Suggests

American Lung Association and National Association of School Nurses Call on Parents, Schools and Health Care Providers to Establish Asthma Action Plans

New York, NY — According to a national sample of members surveyed from the National Association of School Nurses, asthma is more disruptive of school routines than any other chronic condition, has a significant impact on absenteeism and many school staff may lack awareness of the causes of an asthma attack. The NASN and the American Lung Association are working together to improve communications between parents, school nurses and health care professionals in an effort that may help reduce the number of asthma episodes or attacks children experience each year.

Results from the Asthma in Schools survey suggest that an overwhelming majority (85%) of school nurses believe that there are students with undiagnosed asthma in their schools. More than half found asthma more disruptive to the student body routine than any other chronic health condition, with more than a third of nurses having to respond to an acute asthma attack or episode at least 11 times in the last school year.

"We recognize the damage that can be done to the education process when 14 million school days are lost annually due to asthma," said Dorothy Reilly, RN of the National Association of School Nurses. "This survey suggests that when it comes to asthma management as it impacts a child's educational experience, there is definite room for improvement."

-more-

American Lung Association 61 Broadway New York, NY 10006 212-315-8700 www.LungUSA.org

- 85% of school nurses believe there are students with undiagnosed asthma in their schools.
- More than half of school nurses found asthma more disruptive to the student body routine than any other chronic health condition.
- More than one-third had to respond to an acute asthma attack or episode more than 11 times in the last school year.
- "We recognize that damage can be done to the education process when 14 million school days are lost annually due to asthma."

Page 2 – *"Effective school asthma management can help prevent an asthma attack, according to Dr. Weiss-Harrison. This includes keeping children with asthma away from potential triggers, such as mold, dust, chemicals, strong odors or furry or feather animals"*

Page 3 - *"When an asthma attack occurs, having a rescue inhaler in hand—not sitting in the nurse's office—can mean the difference between life and death," said John Kirkwood, President & CEO of the American Lung Association.*

Classroom Air Purifiers Can Make A Big Difference

In fully equipped school buildings, Classroom Air Purifiers were credited with some amazing first year improvements.

- Reduced absenteeism from 18 average sick days per student to 7 sick days. A 61% improvement.
- Reduced inhaler use by 70%.
- Reduced teacher sick days by 50%.
- Test scores improved significantly the first year.
- Teachers reported students felt better and were more focused and alert in class.
- Teachers reported being able to quit taking medicines for allergies that cost as much a $600 per month per teacher.

Summary of Our Funding Request

The NAESP-CAFK Corporate Sponsorship Program goal is to raise 30 millions dollars to help schools across the country implement a proven wellness program that will have immediate positive results and offers a significant financial return. The cost of $30 per child per year offers a huge benefit in many areas, please give generously to our program.

This investment helps every future class that uses that classroom and gives all children a fair chance at learning. Asthma and Autism are linked to breathing harmful allergens and toxins, and our program helps the oldest, most needy schools in rural communities and inner cities.

What Causes Poor Classroom Air Quality

Four Areas Contribute

1. Building cleanliness, water damage history, mold, dust, mildew, insects, cleaning chemicals, pesticides, indoor plants, classroom pets and HVAC System issues.
2. Teachers and students bring in pollen, mold, dander, body odors and illnesses to add to the air.*
3. Outside air can have high levels of dust, pollen, mold and toxins.*
4. Vehicle traffic from cars and trucks adds particles.*

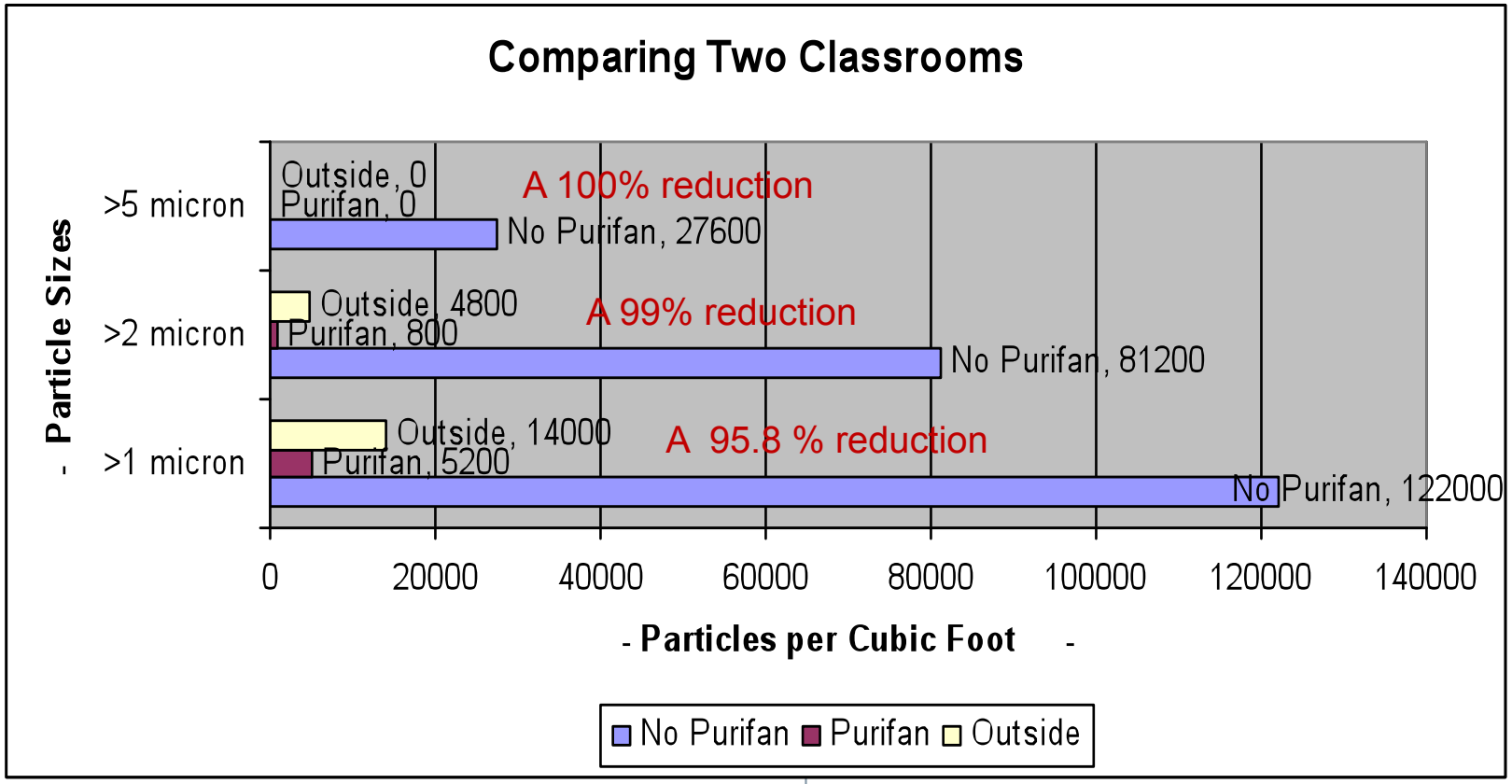
* School facility managers have no control over most sources

Can A School Control These?

1. Yes- Schools should maintain buildings using EPA Tools for Schools Program.
2. No - Particles on clothes, home cleanliness and personal hygiene. Contagious germs and viruses.
3. No - Dust from fires, farming fields, dry conditions, wind, pollen, mold and decaying leaves. Industrial air pollution and toxins.
4. No- Vehicle exhaust particles and gasses are highest in schools near high vehicle traffic areas or downwind of near-by highways.

Particle Counts in 2 Typical Classrooms

Two kindergarten classrooms in the same 75 year old school building.

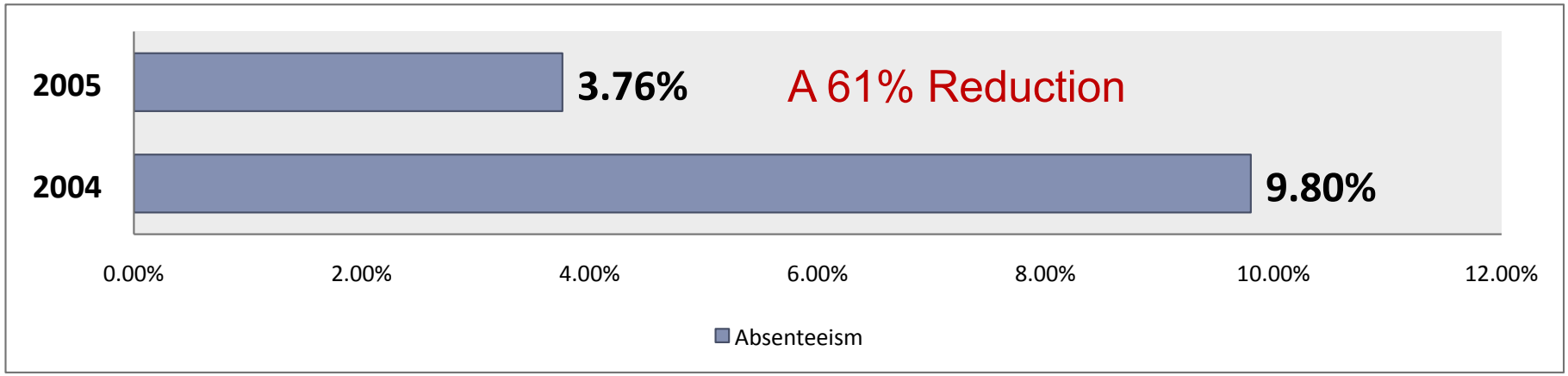


Note that Air Purifiers are capturing more than 90% of particles >1 micron

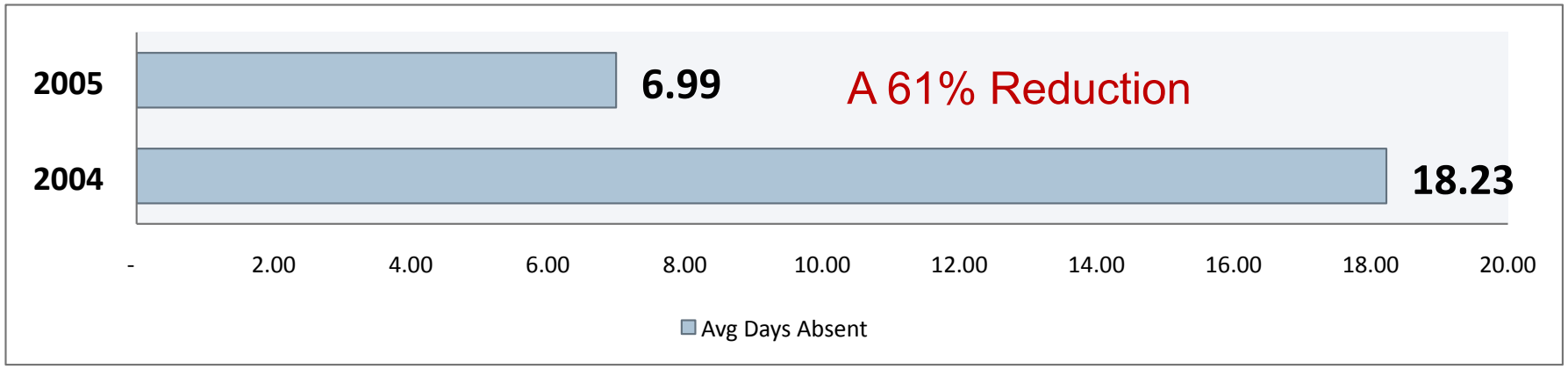
The 59-year-old teacher had constant health problems including pneumonia 3 times in one year before Classroom Air Purifiers and she had no sick days the year after she got Classroom Air Purifiers.

Reported Attendance After Classroom Air Purifiers Are Installed for 2005

Absenteeism Percentage



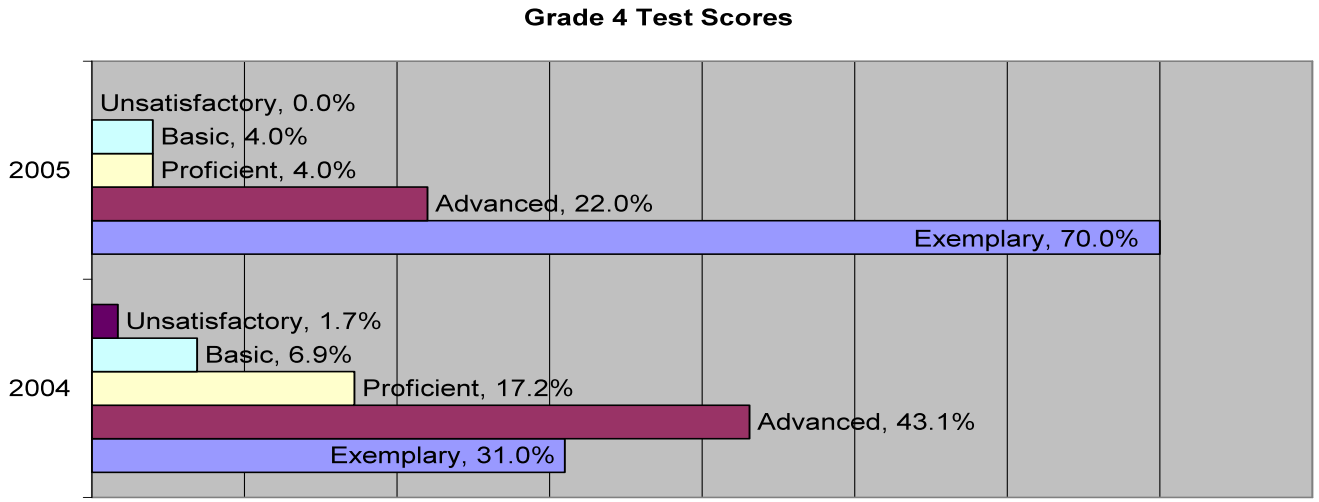
Average Number of Sick Days per Student



Howard Wilson Elem. – Leavenworth, KS

Air Quality Can Help Boost Test Scores

The NCLB test scores below are from the same school, using the same books and the same teachers, but in 2005 the school had Classroom Air Purifiers installed throughout the building including hallways, special use rooms, offices, cafeteria and library. The teachers reported the children behaved much better, were more alert and missed 61% fewer sick days. The school nurse reported 70% less inhaler use, and many students were able to get off mind-numbing allergy medicines. Do you know of any other academic improvement program that ever produced this much test score improvement in only one year?



Helps New Buildings and Old Buildings

New Building Issues

- Tighter construction
- Trapped chemicals and gasses from new materials
- HVAC runs less creating potential mold issues
- Windows don't open
- Particles get trapped inside
- Breathing the same stale air

Older Building Issues

- Water damage causes hidden mold problems
- Older smells and odors
- Dust and dirt collection
- Wind blows dust, pollen and mold into rooms
- Add-on air conditioning solutions

A Wellness Program That Really Pays Off

Compared to other school wellness programs that require a change of lifestyle, diet or a major personal commitment.

- If they breathe they participate.
- Respiratory issues like allergies, asthma, colds and flu are the largest cause of sick days and health care costs in schools.
- Cleaner Air helps people feel better and perform at better mental level. Test scores improve.

100% of Occupants

Allergies Are Common

Immediate Payback

Asthma & Allergies are Avoidable Illnesses

Asthma is the result of breathing too many particles that irritate delicate tissues in small children's respiratory system.

- Reducing particles REQUIRES aggressive in-room filtration.
- Particles arrive on the students every day – you can't eliminate them with building maintenance
- Lung defenses wear down over time because they seldom get a break, immune systems fail

"School Air Quality may be causing 50% of Asthma cases in children," Claire Barnett, Executive Director of the Healthy Schools Network

Indoor Air Quality Can Cause Asthma

Remove the Triggers and Asthma Issues Disappear

Lungs Can Repair a Lot of the Particulate Damage

New Contagious Illnesses Are Dangerous

Contagious illness outbreaks, like H1N1 are causing more school shut-downs than ever before.

- Reducing airborne spread is a key to controlling the total risk. These illnesses spread quickly
- Impact of new illnesses will last longer, require more sick days and have more serious consequences including death.

Filtering the air will help reduce the spread of many types of contagious illnesses in school settings through airborne particle droplet transmission.

New Bugs Will Be Much Worse

Illnesses Mutating Around Medicines

Contagious Risk is Much More Serious Threat

The Big Tub of Air in the Room

All the children in a classroom inhale and exhale into the same big tub of air in the room. They inhale moisture droplets that someone else has exhaled. The only way to reduce the sharing of illnesses is to aggressively filter the air at rates of 12 or more air changes per hour. Teachers report this really makes an immediate improvement in the classroom.

What Does A Sick Day Really Cost?

The real cost when a parent has to miss work to care for a sick child is substantial.

NAESP-CAFK's Wellness Program focuses on the avoidable causes of daily absenteeism and presenteeism. (sick at school) The savings can be quite large, and realized in the very first year of implementation.

Example uses a modest estimate of a $25,000 parent's salary or $100 per work day. Higher salaries will increase many of these values.

- Paid sick day to stay home - $100
- Value of lost work - $100-$200?
- Impact on project schedules
- Impact on other employees who have to cover for the sick person
- Cost of health care used
- Cost of prescriptions
- Cost of preventative medications
- Side-effects of meds and over the counter drugs

Value is $240-$500 per day

Typical School Installations

Wall, New Jersey

A 125 Year Old School Building

Leavenworth, Kansas

A 53 Year Old School Building

Potential Value of Teacher Wellness

Assuming today's teacher health insurance is $650 and is increasing at 10%.

Five year insurance cost will be $48,000.

Studies showed almost 62% of health costs were respiratory related. That is $29,500 over the five years.

Could $2,000 spent on Classroom Air Purifiers save more than $2,000 in teacher health costs out of $29,500?

Savings for teacher's health

- Allergy and Asthma medications
- Reduced contagious illness
- Reduced teacher sick days 50%
- Less bronchitis, ear infections, pneumonia, Asthma, URTI and ARI
- Substitute teacher costs for 10 to 20 days saved over 5 years.
- Value of paid sick leave costs for teacher to stay home?
- Co-pays and deductibles costs for teachers
- Recruiting and retention value

Other Benefits of Clean Air in Schools

Classroom Air Purifiers are ceiling fans that move and clean the air so the benefits include:

- Comfortable room air flow eliminates hot and cold spots in the room
- Less dust in computers, LCD projectors and other types of technology used in most schools
- Savings on heating and cooling costs
- Less dust clogging up HVAC filters
- Visibly less dust on surfaces and floors
- Reduces odors from building and people

Summary – Top Reasons for Funding

1. Students and teachers deserve healthier classroom air quality.
2. Low cost per student with substantial total payback potential.
3. Asthma is the number one chronic illness and growing every year.
4. May be one of the most successful programs to boost test scores.
5. Respiratory illnesses have a major impact on teacher health costs.
6. New contagious illnesses pose more serious health risks and death.
7. Improves a common school problem for future students for many years.
8. Keeping parents at work helps community employers and reduces the negative financial income impact on struggling families.
9. Due to budget cuts, floods and storms, more schools struggle with maintenance issues and the resulting mold and air quality issues.
10. Most of the most popular Classroom Air Purifiers are made in America, so funding creates American jobs and stimulates local economies through installation and service spending.