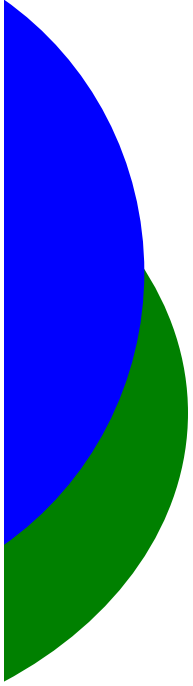# Healthy School Environments

www.epa.gov/schools

Healthy School Environments

- Part 1: Why Care About Healthy Schools?

- Part 2: Healthy School Environments Assessment Tool (HealthySEAT)

Healthy School Environments

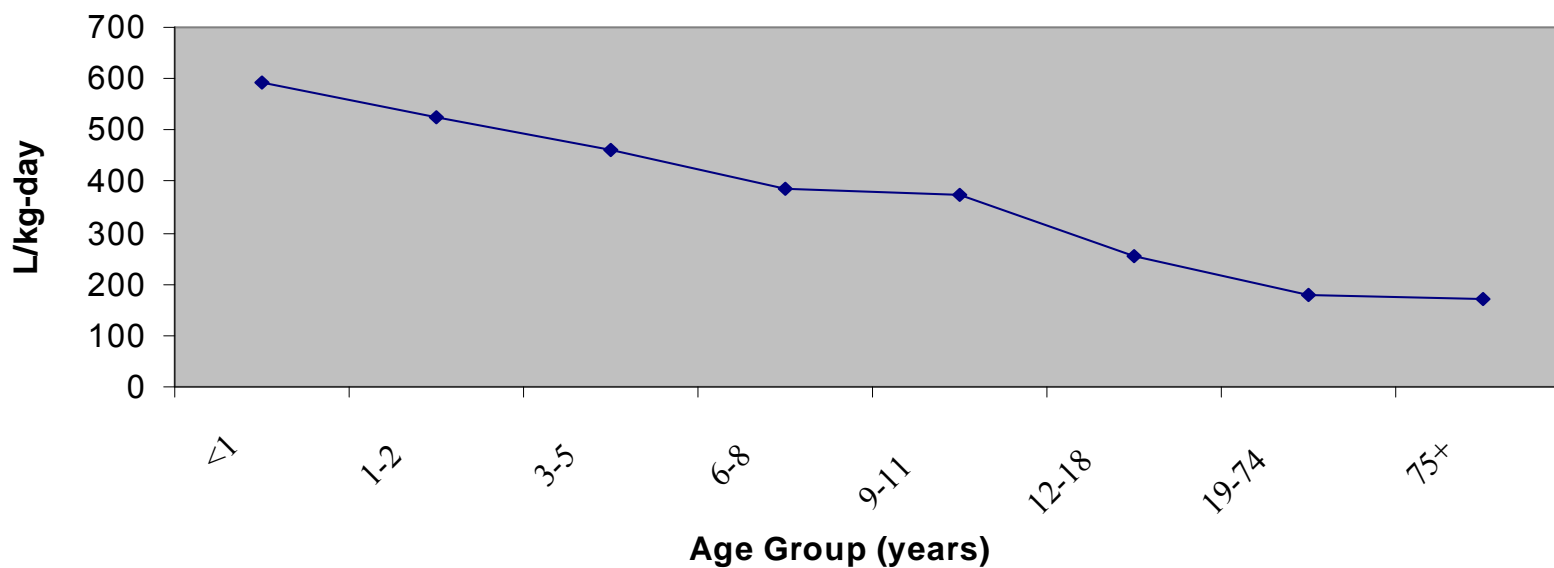## Part 1: Why Care About Healthy Schools?

Susceptible Population

Kids are not little adults:

- Breath proportionately more air

- Consume more food and water relative to their body weight
  - Avg. newborn consumption of formula is 6 oz/kg body weight
  - Equivalent to an adult drinking ~30 12oz. glasses of liquid per day
- Children's bodies may absorb more toxicants
  - Children's brain and organs may receive disproportionately more contaminants
- Spend more time:
  - Outside exposed to pollutants
  - Near or on the ground, where pollutant levels may be higher
- Behavior
  - Place dirty fingers and objects in their mouth
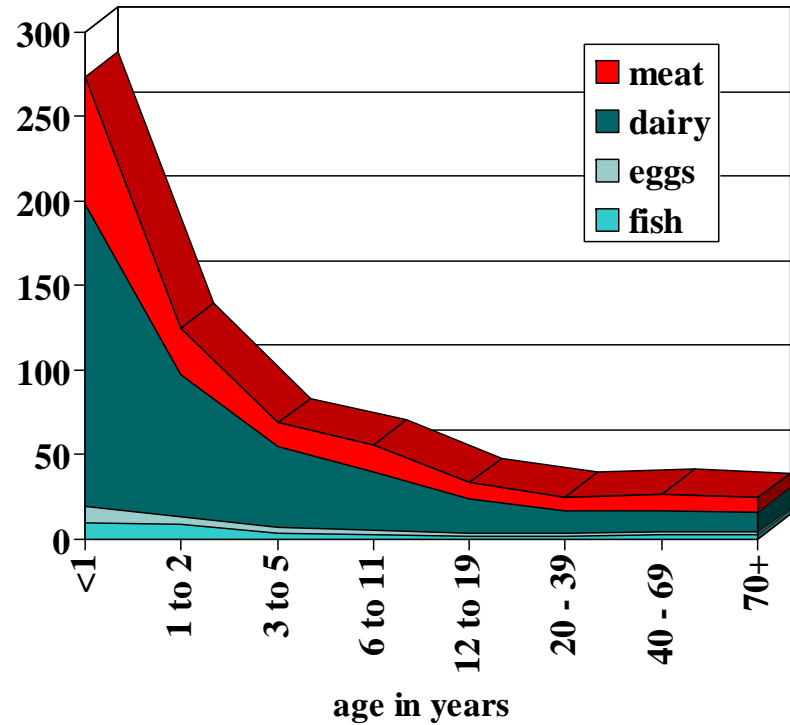 - Eat dirt, which may be contaminated

Inhalation Rates Highest in Infants

Breathing Rates by Age Group

Snodgrass, 1992

Children Eat & Drink More (per kg body weight)

Left chart: total water intake in gm/kg/d by age in years (<.5, .5-.9, 1 to 3, 4 to 6, 7 to 14, 15 to 19, 20-44, 45+), y-axis gm/kg/d from 0 to 200.

Right chart: meat, dairy, eggs, fish by age in years (<1, 1 to 2, 3 to 5, 6 to 11, 12 to 19, 20 - 39, 40 - 69, 70+), y-axis 0 to 300.
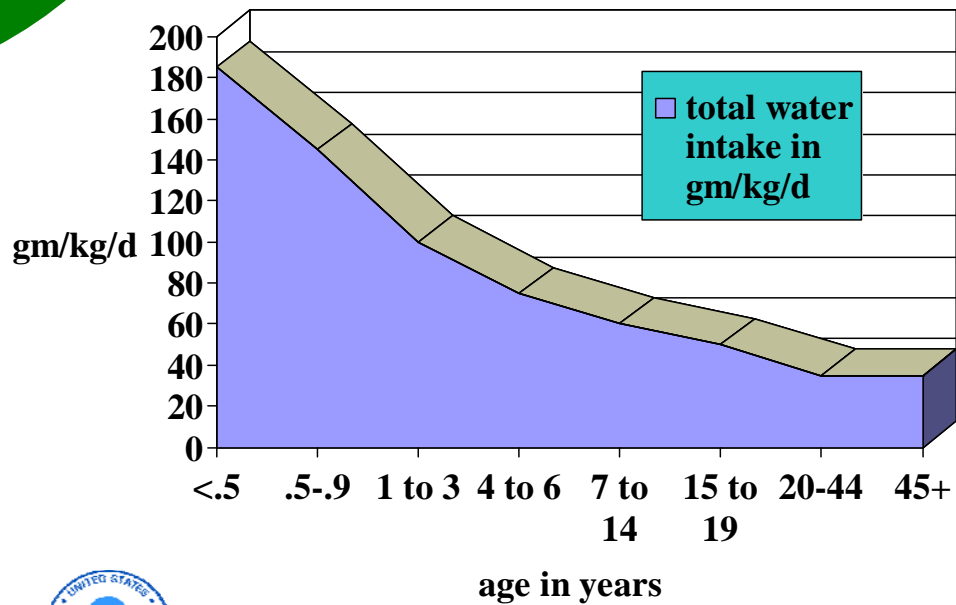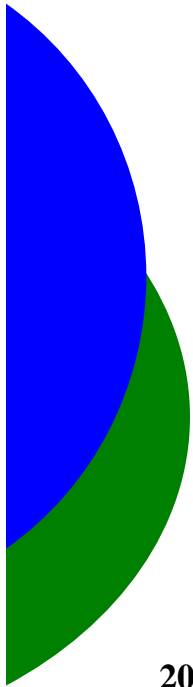
Data from Ershow and Cantor, NCI 1989

High Occupancy Rate

- 1 in 5 people spend most of their days in schools
  - ~53 million kids
  - ~6 million adults
- More time spent in schools than any other environment except the home

High Occupant *Density*

- More people crowded into schools than any other building type
  - Between prisons and airplanes and several times the average workplace
- Implications for:
  - Disease transmission
  - Ventilation requirements
  - Building maintenance

Staph infection worries close 21 Virginia schools

Oct 17, 2007
WASHINGTON (Reuters) - A county in southern Virginia closed its 21 schools on Wednesday to clean them to prevent the spread of a dangerous bacterial infection that killed a 17-year-old high school student, officials said.

Many Schools in Poor Condition

- 33% of US schools in need of extensive repair or replacement (Department of Education 1999)
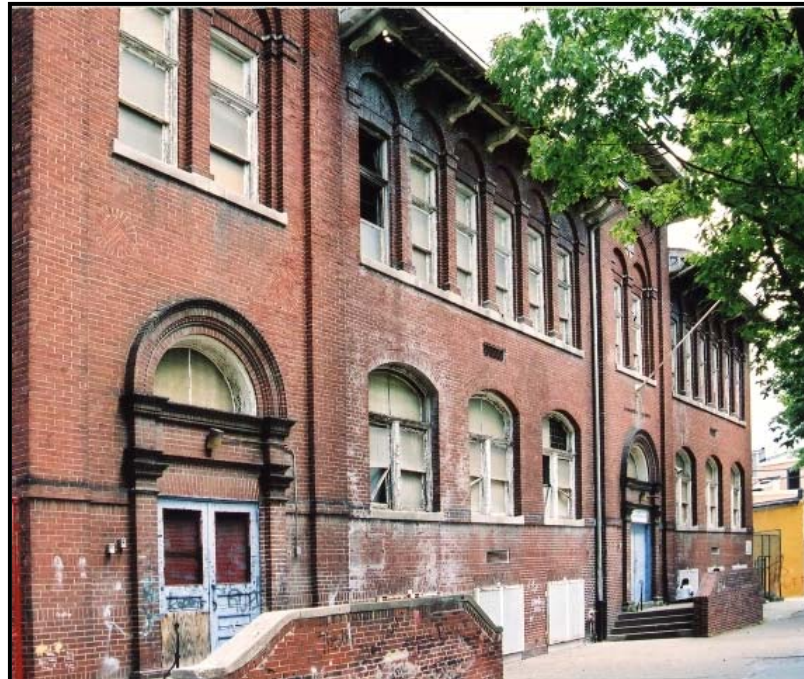
Many Schools in Poor Condition

- Maintenance challenges

- Resource challenges

School environmental issues

- Indoor air quality
- Chemical/hazardous material exposures
- Contaminated sites
- Outdoor air
- Physical factors
- Safety/injury prevention
- Food "environment"
- Physical activity
- Etc.

Indoor Air Quality (IAQ)

IAQ issues include:

- Exposure to outdoor contaminants brought indoors
  - Outdoor air, vapor intrusion, radon
- Exposure to indoor contaminants:
  - Asbestos, mercury, PCB's, lead, pesticides, tobacco smoke
  - Irritating and toxic chemicals from many sources
  - Allergens (animals, pests, mold, etc.)
  - Dust
  - Combustion gases (CO, NO2)
- Inadequate maintenance/cleaning
- Inadequate ventilation
- Odors

IAQ Tools for Schools
Managing Asthma in the
School Environment
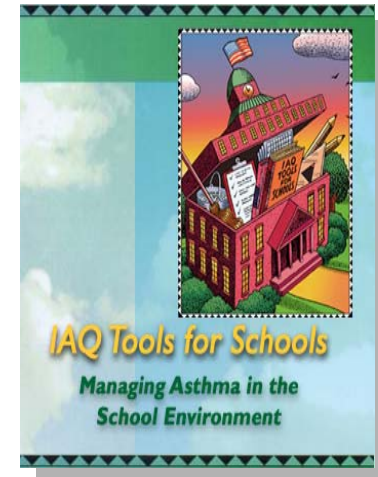
Hazardous Materials

- Asbestos
  - Long term risk of cancer/mesothelioma
  - Still an issue in older schools
- PCBs (mostly pre – 1980 schools)
  - Known carcinogens, toxic effects on immune, reproductive, nervous, and endocrine systems.
  - Electrical Equipment: light ballasts, electrical transformers, etc.
  - Building materials: Caulk
  - Regulated when removed and disposed of (e.g., renovations, demolition)
- Tobacco smoke

Hazardous Materials

- Mercury
  - Sources
    - Thermostats, thermometers, barometers, elemental mercury/mercury compounds, batteries
  - Health effects include:
    - Ingestion, inhalation and skin absorption with acute and chronic exposure effects including central nervous system and kidney damage
- Lead
  - Sources
    - Paint dust and drinking water
  - Health effects include:
    - (5 years and younger), 10 micrograms of lead per deciliter of blood can affect a child's ability to learn.
    - At levels higher than 10 micrograms per deciliter, lead can damage kidneys and reproductive systems.
    - At very high levels, lead poisoning can cause mental retardation, coma, convulsions, and death.

Chemical Exposures

- Pesticides
- Laboratory chemicals
  - mercury, formaldehyde, etc.
- Cleaning and maintenance
- Classrooms
  - cleaners, art supplies, etc.
- Vocational/technical education
  - automotive, carpentry, electronics, graphic arts, welding, etc.
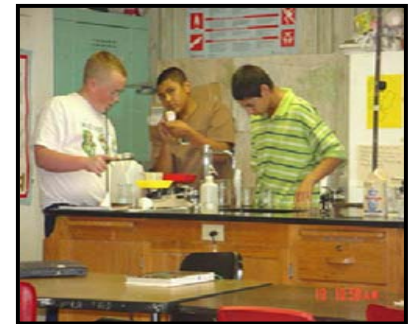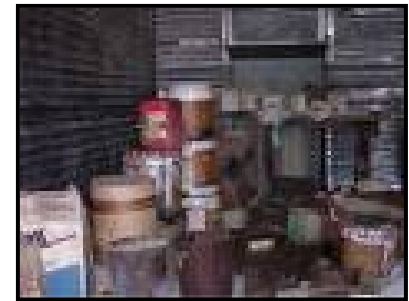
Asthma

- About 6.3 million school aged children have asthma in the U.S.

- Asthma is a leading cause of school absenteeism due to a chronic condition (~14 million missed school days/yr.)

Child Asthma Prevalence in U.S.
1980-2003
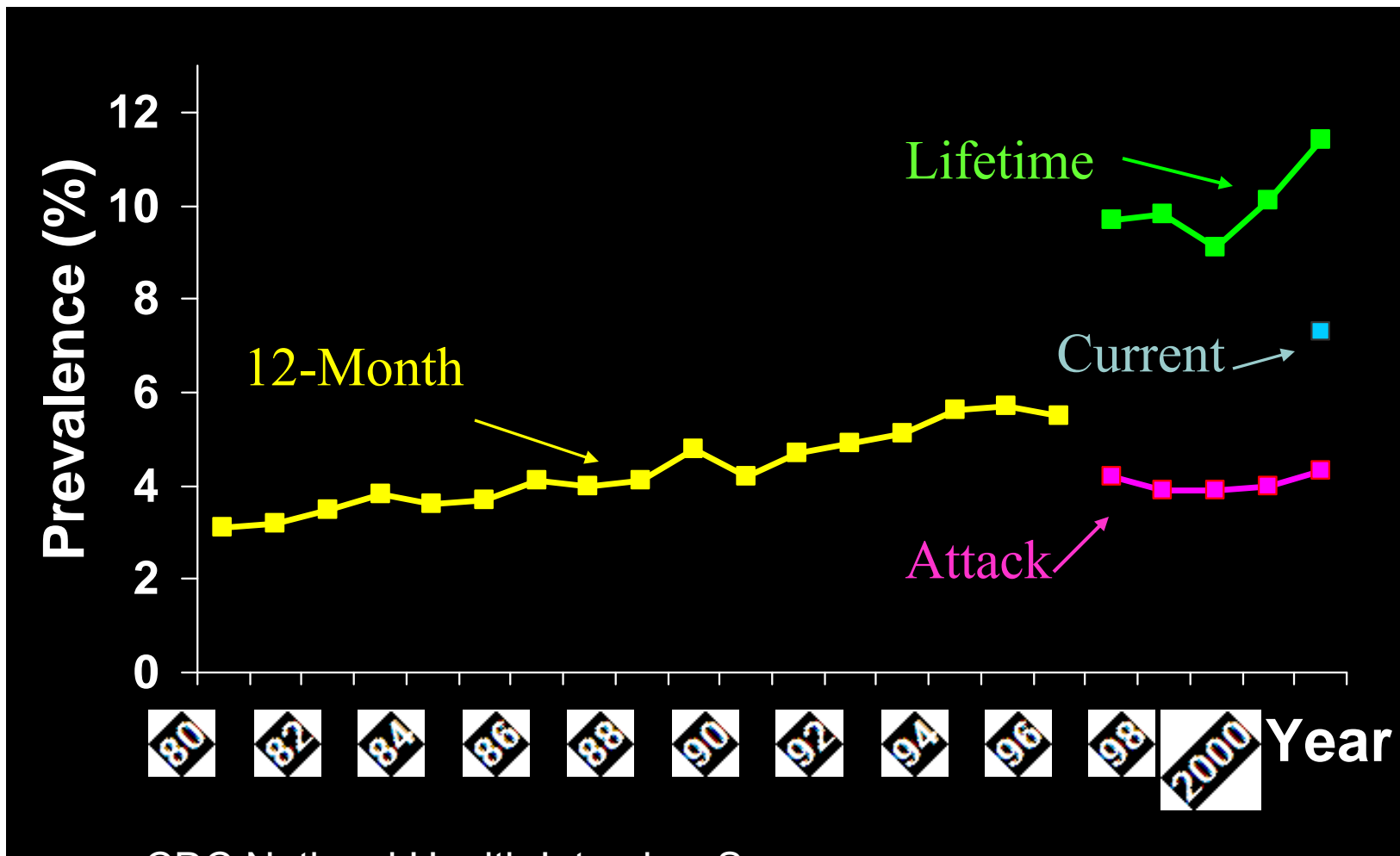
Asthma Management

- Environmental Triggers
  - Allergens:
    - animal dander
    - cockroach
    - dust mites
    - mold spores
  - Bronchial irritants:
    - chemicals, cleaners, dust, fragrances, fumes, food odors, etc.
    - diesel exhaust
    - environmental tobacco smoke
- Medical management
  - Asthma action plans
  - Accessible meds
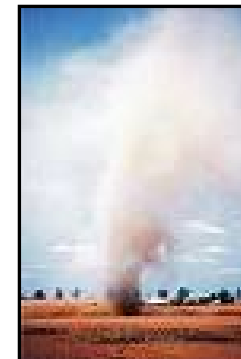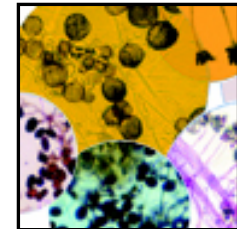
Mold and Moisture

Potential mold health effects:

- Allergic reactions/asthma attacks in sensitive individuals
  - non-sensitive individuals may become sensitized
- Irritant effects (eyes, skin, nose, throat, and lungs)
- Mycotoxins produced by some molds may produce other health effects—little research to date
- Prudent to minimize exposure to mold
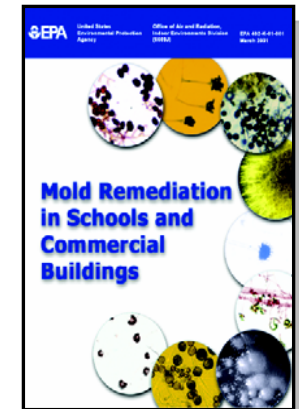
- Fix the water problem!
- Clean up the mold

Outdoor Air Pollution

- Particles/diesel
- Ozone
- Carbon monoxide
- NO_2
- SO_2
- Lead
- Air toxics

Diesel

- Health Effects
  - Lung cancer risk, lung damage, aggravates existing respiratory conditions
- Exposures:
  - Schools near roadways
  - Exhaust levels on school buses can be 8x average levels found in the ambient air
  - Indoors as exhaust enters through doors, windows & air intakes
- Exposure reduction:
  - Cleaner bus engines
  - Retrofit emission controls
  - Reduce idling and caravanning

www.epa.gov/cleanschoolbus

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Schools built on contaminated land or near industrial sources

- Vapor intrusion: contaminants entering buildings on or adjacent to contaminated sites

- Nearby industrial air pollution sources

Belmont Learning Center (LA)
- Sited on an old oil field
- Geologic fault discovered '02
- Est. cost to complete: $300 M

- Lesson: Evaluate sites *before…*

Occupying contaminated buildings

- Mercury vapor levels at least 27 times the regulatory limit
- 1/3 of 60 children who attended the center and have been tested have shown abnormally high levels of mercury in their systems

After Mercury Pollutes a Day Care Center, Everyone Points Elsewhere

New York Times
August 19, 2006

David Hunsinger for The New York Times

Day care center in Gloucester County opened in 2004 in a former thermometer factory that had never been decontaminated.

Disparities

- Environmental risks often fall disproportionately on:
  - Minorities
  - Lower educational level (e.g., secondhand smoke)
  - Low income communities
    - Fewer financial resources=fewer choices (e.g., living near industrial facilities, roadways, contaminated sites)
    - Limited community resources available for schools

Do School Facilities Affect Academic Outcome?

Do School Facilities Affect Academic Outcomes?

National Clearinghouse for Educational Facilities

Mark Schneider
November 2002

On any given school day, about twenty percent of Americans spend time in a school building. The average age of our schools is close to fifty years, and studies by the U.S. General Accounting Office have documented widespread physical deficiencies in many of them. Faced with an aging building stock and growing, shifting student enrollments, states and communities are working hard to build and modernize K–12 facilities.

Those involved in school planning and design see this as an opportunity to enhance academic outcomes by creating better learning environments. Their logic is compelling—how can we expect students to perform at high levels in school buildings that are substandard?

We all know that clean, quiet, safe, comfortable, and healthy environments are an important component of successful teaching and learning. But which facility attributes affect academic outcomes the most and in what manner and degree?

A growing body of research addresses these questions. Some of it is good, some less so; much of it is inconclusive. The research is examined here in six categories: indoor air quality, ventilation, and thermal comfort; lighting; acoustics; building age and quality; school size; and class size.

Indoor Air Quality, Ventilation, and Thermal Comfort

There is a growing body of work linking educational achievement and student performance to the quality of air they breathe in schools. Some of this research is just beginning to make a cumulative mark, and some of the research, for example on thermal comfort, shows how much variation there is between individuals, making guidance for school construction somewhat difficult.

Indoor Air Quality

Poor indoor air quality (IAQ) is widespread, and its effects are too important to ignore. The U.S. General Accounting Office has found that fifteen thousand schools suffer from poor IAQ, affecting more than eight million children or one in five children in America's schools (General Accounting Office 1995). The IAQ symptoms identified—irritated eyes, nose and throat, upper respiratory infections, nausea, dizziness, headaches and fatigue, or sleepiness—have collectively been referred to as "sick building syndrome" (EPA 2000).

Ironically, the high incidence of symptoms stemming from poor IAQ seems to have emerged as an unintended consequence of the electric power brownouts, oil embargoes, and gas lines that characterized the 1970s energy crisis. In response to that national emergency, many buildings, including schools, were fitted with air handling systems and controls that delivered less fresh air than now is considered adequate. Most recommendations from the Occupational Safety and Health Administration (OSHA) and the National Institute of Occupational Safety and Health (NIOSH) now call for between fifteen and twenty cubic feet of air per minute per person. These enhanced ventilation rates not only deliver more adequate supplies of fresh air but also help dilute or remove contaminants, especially chemical (e.g., formaldehyde, toluene, and styrene) and biological (e.g., mold and bacteria) contaminants that have highly demonstrable negative health effects.

Linking IAQ to Student Performance

Most discussions linking IAQ to student performance depend on a series of simple logical links: poor indoor air quality makes teachers and students sick—and sick

National Clearinghouse for Educational Facilities
1090 Vermont Avenue, N.W., Suite 700, Washington, D.C. 20005-4905   888-552-0624   www.edfacilities.org

**Greening America's Schools
Costs and Benefits**
Gregory Kats

25

IEQ factors and Human Performance

Lighting
- Bright
- Dim
- Glare

Sound
- Noise
- Disturbance

Temperature
- Hot
- Cold

Productivity

Indoor Air Quality
- Acute
- Chronic

Personal Control

Vibration
- Segmental
- Whole-body

Hedge, 2004

26
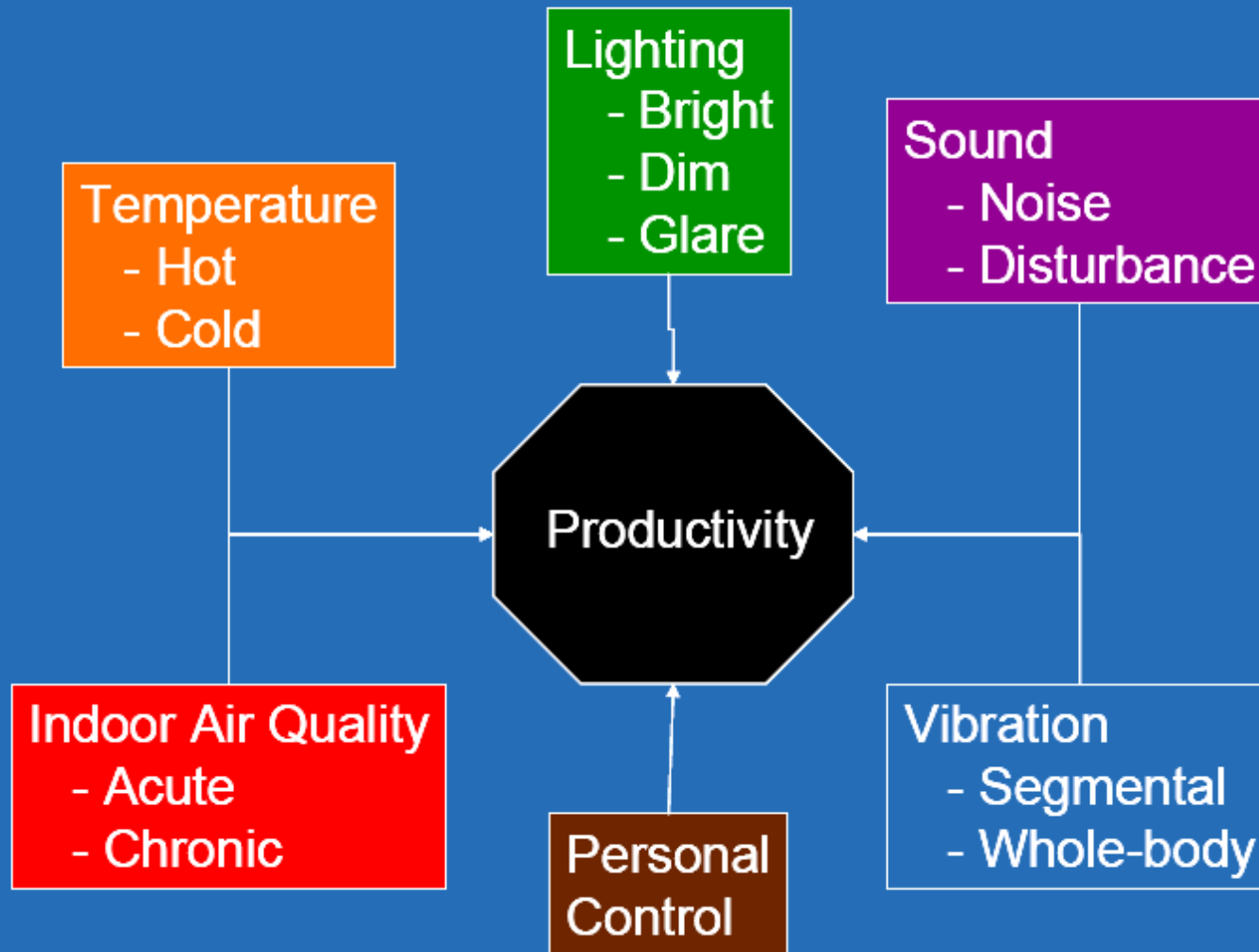
Physical factors

- Lighting
  - Day-lighting shown to increase math & reading test scores (Heschong-Mahone)
- Reasonable class size
  - More time in small classrooms (class size <16) associated with improved academic achievement (Maxwell 2006)
- Noise/accoustics
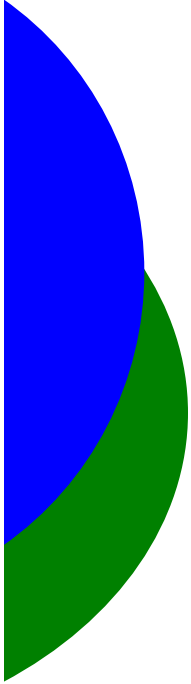
Ventilation and Thermal Comfort

- Ventilation

  - Inadequate ventilation reduces productivity and performance (EPA 2003)

  - Calculated means in reading and math scores suggest an increasing trend with increasing ventilation rate. (Shaughnessy, ASHRAE, 2007)

- Temperature & Humidity

  - Decrease in performance noted: 2% ↓ for each 1 degree ↑ between 77 °F and 89 °F …. Optimal temperature 72 °F (Seppanen & Fisk, Clima 2005)

Health Gains from Improved Indoor Air Quality

Figure B: Health Gains from Improved Indoor Air Quality

Source: Carnegie Mellon University Center for Building Performance, 2005
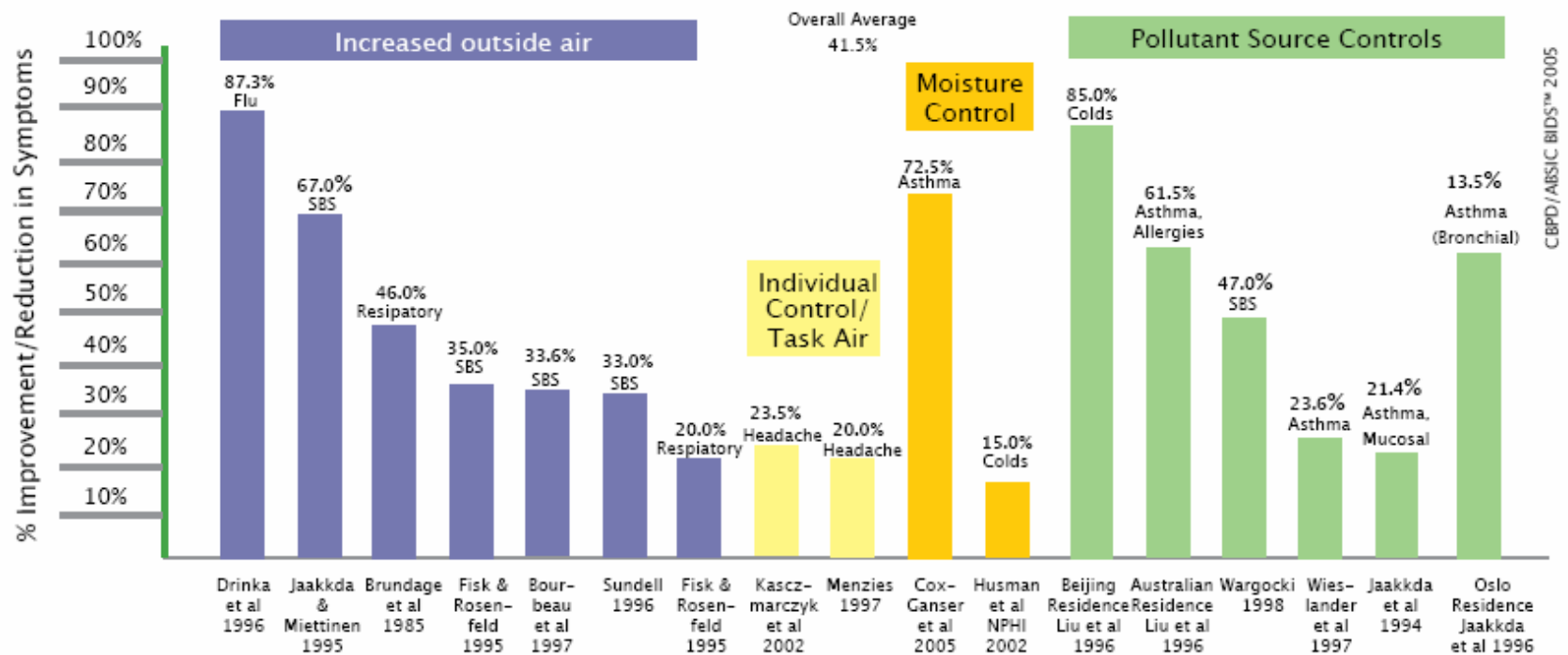
Money talks…

- What can happen if you *don't* focus attention on environmental risks…
  - Loss of funding tied to attendance/performance
  - School closings
    - Temporary and permanent
    - Large associated costs
  - Potential increased liability
  - Loss of community trust

> **"Ballou High School May Be Shut for Month**
> Mercury Cleanup Continues; Classes Planned Elsewhere"
> **-- Washington Post**
> Sunday, October 5, 2003

Money talks…

What can happen if you *do*:

- LAUSD: Employee absenteeism costs dropped by $20 million from 2003 to 2006 after implementing its Safe School Inspection Program Source Buckley, J. LAUSD School Facilities and Academic Performance

- Life cycle savings from adopting 15 individual green building technologies was over 8 times as large as the direct first cost of these measures. Source: *Greening America's Schools, Costs and Benefits*, Greg Kats, 2006

- Energy savings of 33% on average for 30 green schools indicating an average savings of $0.38/ft^2 per year in green schools. Source: *Greening America's Schools, Costs and Benefits*, Greg Kats, 2006

- Wide range of other potential $$ benefits:
  - Asthma cost reduction, lower operation and maintenance costs, insurance and risk related benefits, etc. Source: *Greening America's Schools, Costs and Benefits*, Greg Kats, 2006

Opportunities for Creating Healthy Schools

- **Improve existing schools** (including "portables")

- **Manage repairs and renovations better**

- **Build high performance schools**
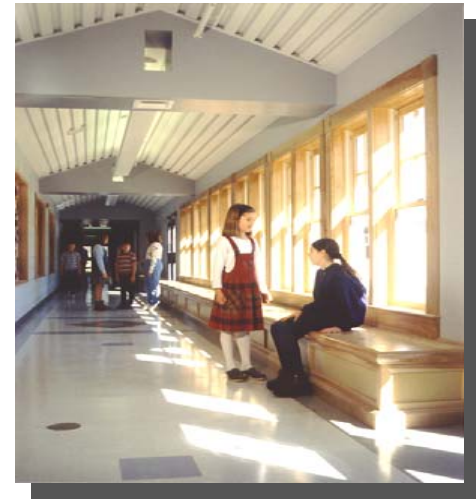
Build New High Performance Schools

- Healthy
- Thermally, visually, and acoustically comfortable
- Energy, material, and water efficient
- Easy to maintain and operate
- Commissioned
- Environmentally responsive site
- Teaching tool
- Safe and secure
- Community resource

Source: Collaborative for
High Performance Schools

High Performance Schools Resources

- Rating Systems
  - Collaborative for High Performance Schools (CHPS)
    - www.chps.net
  - LEED– Leadership in Energy and Environmental Design
    - www.usgbc.org
- Indoor Air Quality *Design* Tools for Schools
  - www.epa.gov/iaq/schooldesign
- Greening America's Schools: Costs and Benefits (Kats 2006)
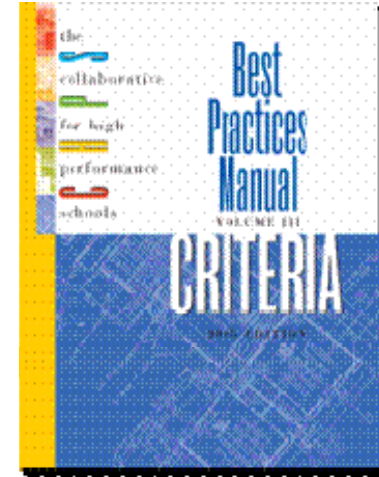
www.epa.gov/schools

Fix Existing Schools with Care

- Renovation poses significant risks
  - Asbestos and lead
  - Exposure of occupants to many other potential contaminants
- Solutions:
  - Testing for hazardous materials
  - Timing of activities
  - Distance
  - Barriers
  - Manage air flows

Install temporary barrier between occupants and work area
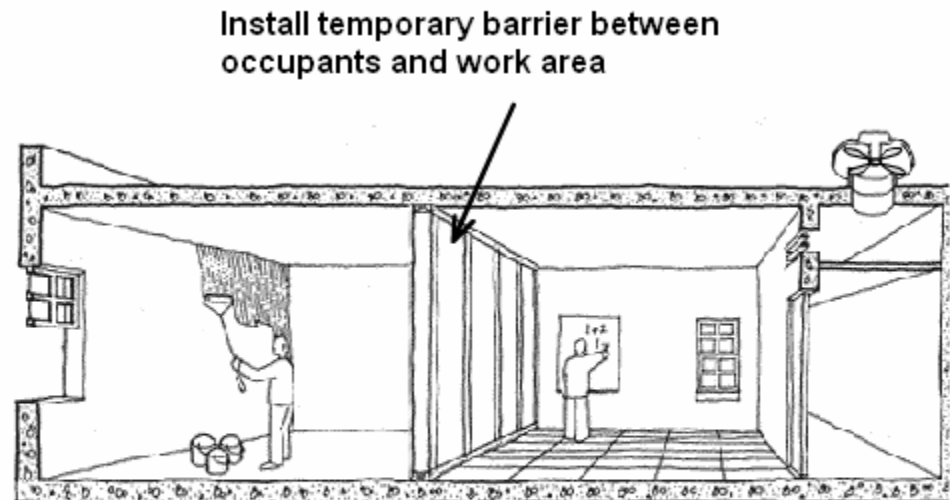
Problem — Solution

IAQ Design Tools for Schools

Healthy School Environments

Part 2:
Introduction to HealthySEATv2

Schools Are Different

- 120,000 K-12 schools
  14,000 school districts
  53 million kids
  6 million staff
- Susceptible population
- Aging infrastructure
- Many environmental health issues
- Many competing priorities
- Few resources
- Longstanding concerns about unfunded mandates & EPA (e.g., asbestos)

Financing

Class Size   Budgeting

Teachers   Title VI
          Attendance   Students w/ disabilities
Salaries   Test   Nutrition programs
              Scores   Title 1
Curricula   Athletics   Economically disadvantaged students
   Books   Education

Emergency Preparedness/ Homeland Security

School Facilities   Health & Safety
More seats   Drugs   Violence
       School siting
New construction   PregnancyAsthma
Repairs & renovation   Injuries   HIV
       O&M

Environment

EPA Programs for Schools

PCBs (OPPTS)

Indoor Air Quality Tools for Schools (OAR)

Integrated Pest Management/Pesticides (OPPTS)

Tribal Schools Initiative (OECA)

Asbestos (OPPTS)

energy (OAR)

(OAR)

SunWise (OAR)

Schools School Districts School Orgs Other NGOs

Smart Growth (OPEI)

Lead-Free Drinking Water In Schools and Day Cares (OW)

Chemical Cleanout Campaign (OSWER)

Mercury (OPPTS)

WASTE WISE (OSWER)

38
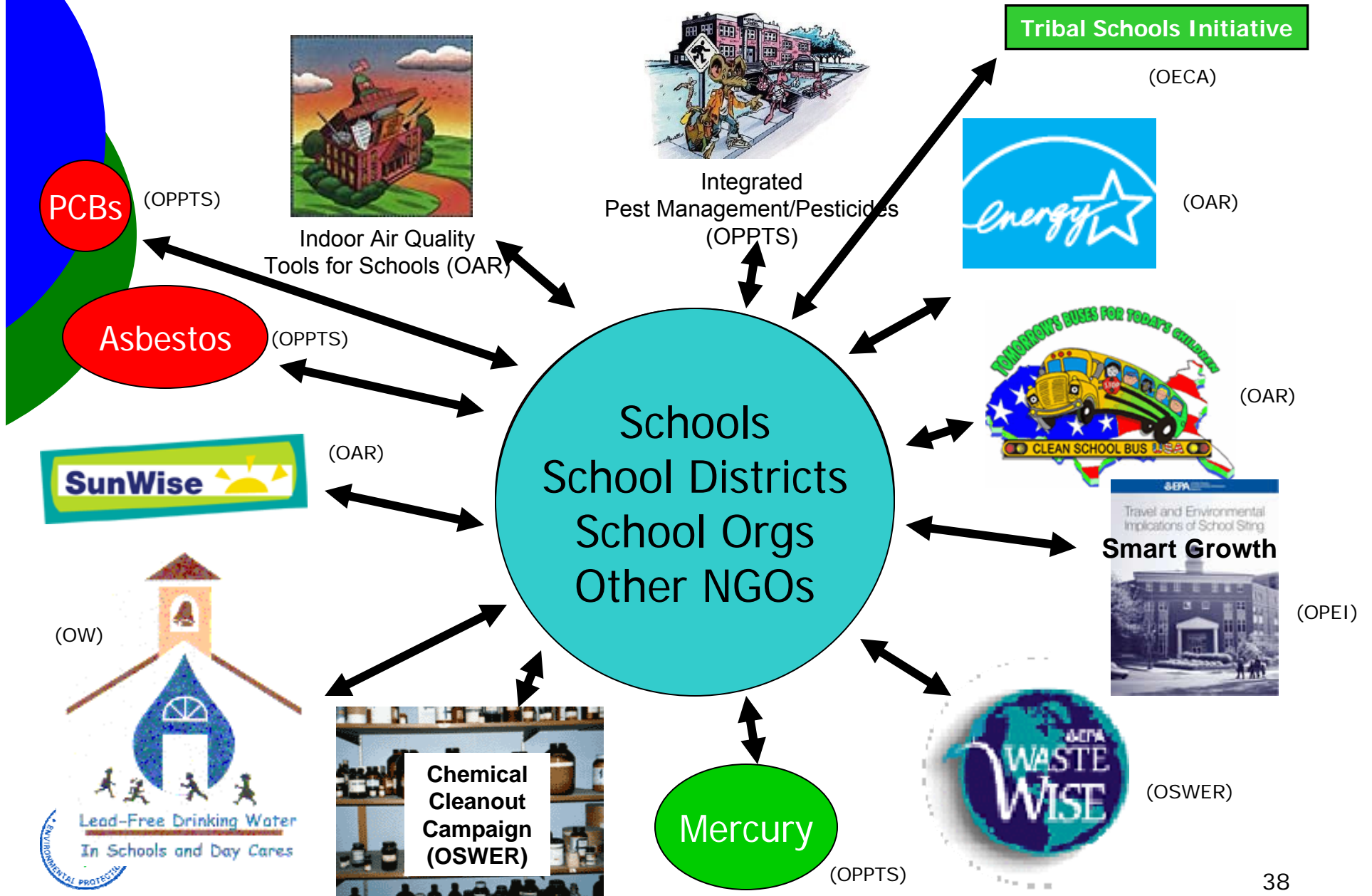
HealthySEAT Purpose

- Prevent problems *before* they arise:
  - Assess conditions in all schools through periodic inspections
  - Identify deficiencies
  - Track corrective actions
  - Produce compelling data on facility conditions and needed improvements
  - Educate staff

HealthySEAT Overview

- Voluntary self-audit software tool
  - Based on LAUSD model
  - Track and manage ALL environmental health and safety issues
  - No EPA reporting requirements

- Download software from EPA web site at no cost
  - Microsoft Access Runtime Version included
  - Manage database on any Windows computer *or*
  - Create network of users with access through central server
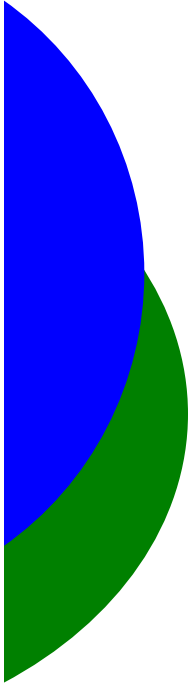
HealthySEAT Overview

- Integrates *every* EPA issue for schools
  - Also includes safety and health info. from DoED, CDC, OSHA, NIOSH, CPSC, DOT
- User audience: *district-level* health, safety, risk, &/or facility managers
  - Intended to manage information about multiple facilities
- *Fully* customizable
  - Adapts to fit state and district requirements, policies, priorities, & capabilities

What will HealthySEAT do?

- Generate notification letter to school prior to an assessment
- Generate checklist for that assessment: school-, date-, and inspector-specific
- Create a recommendations package after the assessment
- Maintain records of all assessments
- Track the status of open recommendations/deficiencies for all schools
- Generate a variety of reports

What's New in Version 2

- Create multiple custom checklists and associated notification letters
  - Example Starter Checklist included
- Easier navigation
- More optional fields provided
- New optional Default Corrective Action field
- Easy update process
  - Use all of your Version 1 customized information, including your checklist and facility specific information

Implementation Strategy

- Focus on building awareness of the tool and its capabilities
  - Market as a *tool*, not a separate program
  - Focus on states, tribes and ~14,000 school districts
- Emphasize state customization to minimize burden on districts
- Recognition and awards for preventative school environmental assessment programs
  - 2007 Children's Environmental Health Award to Los Angeles Unified School District (LAUSD)

Who's Using HealthySEAT?

- ~6000 downloads of the software
  - >1800 since Version 2 released 11/07
- States:
  - New Hampshire and Ohio completed
  - California, Mississippi in progress
- Districts:
  - No clear picture
  - Anecdotal reports from dozens who say they're using it in some form

Ohio HealthySEAT

- Ohio's Jarod's Law requires annual inspections of school facilities by county sanitarians
- Ohio Department of Health (ODH) using HealthySEAT as optional implementation tool
- Ohio HealthySEAT available on ODH web site
- Web training April 16, 2008
  - 174 computer connections, more than 200 individuals trained
- Wide use anticipated

Ohio.gov
So much to Discover!

Ohio Department of
HEALTH ODH
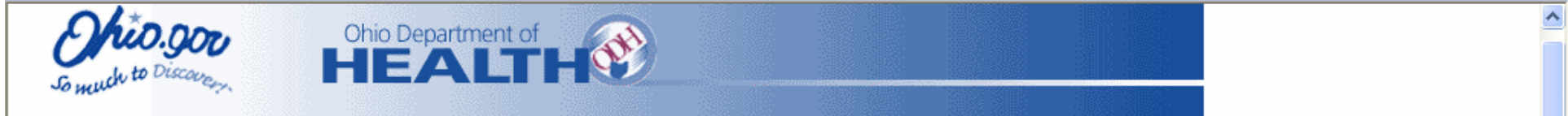
Dangerous and Recalled Products

Forms

HealthySEAT

Rules

Training Materials and Fact Sheets

Training Manual

School Environmental Health and Safety Program

The Ohio Department of Health (ODH), Bureau of Environmental Health, Indoor Environments Section houses the School Environmental Health Program. This program works to improve the environmental health of Ohio's schools through both regulatory and non-regulatory means. Staff provide technical assistance and training to local health departments, school personnel and the general public. In 2006, the Ohio General Assembly passed Substitute House Bill 203, also known as Jarod's Law. This bill requires sanitarians from local health departments to conduct annual inspections of the school buildings and associated grounds contained within their jurisdictions to identify health and safety concerns. As part of this legislation, Ohio Administrative Code chapter 3701-54 was created. This chapter includes the regulations that school buildings must comply with, and that local health departments must enforce during their inspections.   In an attempt to provide additional assistance, ODH created the Ohio School Environmental Health and Safety Inspection Guidance Manual. This manual provides information regarding the requirements of the regulations as well as additional recommendations that are designed to establish a safe and healthy environment in school buildings throughout the state. You will find a link to the guidance manual on the left side of this page in addition to other helpful information regarding the School Environmental Health Program.

Announcements:

HealthySEAT Webinar Now Available Online:
If you were unable to attend the Webinar on April 16, 2008, the entire program is now available online. You can click on the following link to view the training session:
https://www1.gotomeeting.com/register/491370792

HealthySEAT Backend Database Update:
The HealthySEAT backend database has been updated with the pertinent information discussed during the April 16, 2008, Webinar. To download the database you will need to click on the HealthySEAT link on the left side of this page, and follow the instructions.

File   Edit   View   Favorites   Tools   Help

Links

Healthy School Environm...   X   Indoor Air Quality | Air | US E...   IAQ Design Tools for Schools...

U.S. ENVIRONMENTAL PROTECTION AGENCY

HealthySEAT

Contact Us   **Search:**   ○ All EPA   ◉ This Area   [   ]   Go

Schools Home

HealthySEAT Home

Basic Information

Frequent Questions

Download HealthySEAT

Webinar Schedule

HealthySEAT News

Information Materials

Recognition Opportunities

E-mail Updates

HealthySEAT News

Ohio HealthySEAT Now Available to Help Ohio Schools Comply with Jarod's Law

New! The Ohio Department of Health has posted a customized version of HealthySEAT on the Ohio Department of Health web site to help support school districts and local health departments in their implementation of new regulations issued under Jarod's Law. This bill requires that sanitarians from local health departments conduct annual inspections of the school buildings and associated grounds contained within their jurisdictions to identify health and safety concerns. Ohio school districts, county health departments and others can download the HealthySEAT database containing the Jarod's Law regulations as well as the Ohio School Environmental Health and Safety Inspection Guidance Manual from the Ohio Department of Health web site. EXIT Disclaimer

LAUSD Receives EPA 2007 Children's Environmental Health Excellence Award

The Los Angeles Unified School District Office of Environmental Health and Safety received the 2007 Excellence Award for Promoting Healthy School Environments at a reception on October 11, 2007 in Washington, DC honoring eleven Children's Environmental Health Excellence Award winners. LAUSD was recognized for its Safe School Inspection Program, which has resulted in significant improvements across LAUSD's 900 schools and which served as the model for EPA's HealthySEAT school facility assessment software. Read a case study of the LAUSD Safe School Inspection Program.

New Hampshire First to Post State Version of HealthySEAT On-line

The New Hampshire Department of Environmental Services (DES) has developed a version of HealthySEAT with specific information customized for New Hampshire. The New Hampshire HealthySEAT EXIT Disclaimer

Send us your HealthySEAT News

EPA wants to recognize public and private school districts, states, and tribes that are using HealthySEAT to conduct assessments of their school facilities. EPA would welcome submissions for this page, including:

- A few sentences or a longer case study about how you're using HealthySEAT
- Announcements about HealthySEAT
- Customization tips and shortcuts
- Customized checklists and/or generic (non-school-specific) information on your HealthySEAT findings
- Suggestions for improving the HealthySEAT software, documentation and website.

Please send information to:
axelrad.bob@epa.gov

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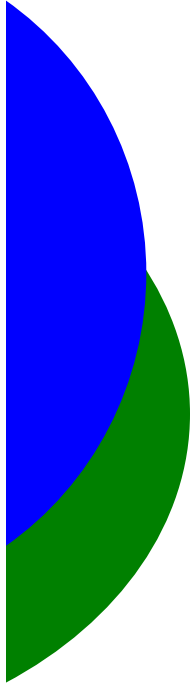
(Almost)

Everything you need:
http://www.epa.gov/schools

Except

Healthy School Environments Assessment Tool (HealthySEAT)

Search: ○ All EPA ⊙ This Area [_____] [Go]

Schools Home

HealthySEAT Home

Basic Information

Frequent Questions

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Webinar Schedule

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Information Materials

Recognition Opportunities

E-mail Updates

HealthySEAT
Healthy School Environments Assessment Tool
Version 2

Basic Information

The Healthy School Environments Assessment Tool (HealthySEATv2) is a fully customizable and easy to use software program designed to help school districts evaluate and manage ALL of their environmental, safety and health issues. Read more...

Frequent Questions

Answers to many questions about HealthySEATv2. Please read before downloading the software. Read more...

Download HealthySEAT Version 2

Everything you need to download and begin using HealthySEATv2. Read more...

Webinar Schedule

New! *Using HealthySEAT* live webinar scheduled for May 21, 2008. Read more and register...

HealthySEAT News

Notices, announcements and information on who's using HealthySEATv2. Read more...

HealthySEAT Information Materials

Materials you can use to tell others about HealthySEATv2. Read more...

New! Ohio HealthySEAT Now Available

Through a collaborative effort between the Ohio Department of Health and EPA, HealthySEAT has been customized to incorporate new regulations requiring annual school inspections issued under "Jarod's Law". County sanitarians in Ohio can use HealthySEAT to manage their Jarod's Law inspections and can submit HealthySEAT-generated reports to the state auditor to comply with the law. The Ohio version of HealthySEAT can be downloaded from the Ohio Department of Health web site. **EXIT Disclaimer**

Listen to and view **EXIT Disclaimer** a 90 minute "on-demand" Ohio HealthySEAT webinar training recorded April 16, 2008.

Getting Acquainted with HealthySEAT for the First Time?

HealthySEAT can be overwhelming if you don't know where to start. Some suggestions:

- Read the Basic Information and Frequent Questions pages.
- Use the Quick-Start Guide to download and test drive HealthySEATv2
- View a 1 hour on-demand webcast introduction to HealthySEAT.
- View an Example Starter Checklist (PDF, 9 pp, 49 KB, About PDF) created with HealthySEATv2.
- View the complete menu of

HealthySEAT

Contact Us   **Search:**   ○ All EPA ⦿ This Area [   ] [Go]

Frequent Questions

Contents

Questions About Version 2 of HealthySEAT

- Whats_New_in_Version_2
- How do we upgrade to Version 2?
- Will we lose or have to re-enter data we loaded into HealthySEAT Version 1 if we download Version 2?
- Our Version 1 database is working fine. Why should we bother downloading Version 2?
- Do we need to remove Version 1 from our computer(s) before downloading and installing Version 2?
- When I download HealthySEATv2.002 and unzip the installation files, why are they not placed in the C:\HealthySEAT2_Install folder as the User's Manual states?
- We have downloaded and installed Version 2 but we can't find the database with our facilities or records of assessments we conducted. What should we do?
- Do we need to download Version 2 to continue to use HealthySEAT Version 1?
- Will HealthySEAT work with the Microsoft Windows Vista operating system?
- **New!** I already have HealthySEATv2.002. Do I need to upgrade to version 2.003?

Basic Questions About the Healthy School Environments Assessment Tool

- What is the Healthy School Environments Assessment Tool?
- What does HealthySEAT include?
- What content is included in HealthySEAT?

Questions About District-wide Assessment Programs

- Why should states and school districts have a school facility assessment program?
- Who will provide the staffing and funds to conduct the assessment program in our district?
- Are there any reporting requirements associated with using HealthySEAT?

Questions About Who Should Use HealthySEAT

- How does EPA intend for HealthySEAT to be used?
- How can HealthySEAT be used by states?
- How can states customize HealthySEAT?
- How do I know if my state is already planning to customize HealthySEAT with state requirements?
- If I work for a school district, should we wait for our state to customize HealthySEAT?
- Can HealthySEAT be used by individual schools?

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U.S. ENVIRONMENTAL PROTECTION AGENCY

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Webinar Schedule

New! **Using HealthySEAT Version 2**

Join a free, live 90 minute HealthySEATv2 Webinar, Thursday, May 21, 2008 from 1:30-3:00 EDST. Learn how to download, install, customize, and use HealthySEAT to plan for and conduct environmental and safety assessments of your school facilities. Reserve your Webinar seat now. EXIT Disclaimer

"On-demand" Webinars

New! **Ohio HealthySEAT Training**

Listen to and view (Windows Media/Audio/Visual File; 134 MB; 100 minutes) EXIT Disclaimer a 90 minute "on-demand" Ohio HealthySEAT webinar training recorded April 16, 2008.

Introducing HealthySEAT Version 2

Listen to and view a one hour recording of the November 15, 2007 Webinar introducing the new features included in HealthySEAT Version 2 and how to download, install and connect the new version to your existing Version 1 database.

Introducing HealthySEATv2 Webinar (Windows Media Audio/Visual File; 80 MB; 71 minutes)

HealthySEAT Version 2 In-Depth Training

This 3 hour recording of the November 28, 2007 "train-the-trainer" Webinar is a detailed training course covering all of the key steps in downloading, customizing and using HealthySEAT, as well as tips for training others in its use. NOTE: This is a

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Healthy School Environments Assessment Tool (HealthySEAT) | Children's Health | Human Health | - Windows Internet Explorer

US
EPA http://www.epa.gov/schools/healthyseat/downloads1.html

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EPA   EPA   EPA

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U.S. Environmental Protection Agency

HealthySEAT

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Download HealthySEAT Version 2

Important Information About Installing HealthySEAT Version 2
HealthySEATv2 Software Download
User's Manual
Checklist and Guidebook

Important Information About Installing HealthySEAT Version 2

Current Version 1 Users Upgrading to Version 2

HealthySEAT Version 2 has been designed to update your existing database without losing any district customized information. If you have been using HealthySEAT Version 1 and have entered data into Version 1 that you wish to save and use with Version 2, such as customized checklist or guidebook information, data on your school facilities, assessors, or assessments you have already conducted using Version 1, follow these instructions.

First Time HealthySEAT Users

If you have not previously downloaded and installed Version 1, or if you installed Version 1 for test purposes but have not entered any data you wish to save, follow these instructions for downloading and installing Version 2 in either a single user environment or a multi-user networked environment:

Installing HealthySEAT on a single computer for a single user.

Getting Acquainted with HealthySEAT for the First Time?

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* Use the Quick-Start Guide to download and test drive HealthySEATv2

* View a 1 hour on-demand webcast introduction to HealthySEAT.

* View an Example Starter Checklist (PDF, 9 pp, 49 KB, About PDF) created with HealthySEATv2.

* View the complete menu of Assessment Standards included with HealthySEATv2 HealthySEATv2 Master Checklist (PDF, 27pp, 101KB, About PDF)

About Security and Passwords

First time HealthySEAT users will be able to open and begin customizing HealthySEATv2 without having to first

🌐 Internet   100%

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U.S. Environmental Protection Agency

HealthySEAT

Healthy School Environments Assessment Tool

Version 2.0

Main Menu
Select from the available options below

Customize for District
Fully customize HealthySEAT for your district's assessment needs (including guidebook, checklists, and assessment standards).

Manage School-Specific Assessments
Schedule assessments, view/enter recommendations, and generate notification letters, checklists, and recommendation reports.

Open Reports/Output Menu
View, print, and export a wide range of data about your district's assessment program.

HELP
Open the HealthySEAT User's Manual (which was saved to your hard drive during installation).

Exit HealthySEAT

Developed by:
EPA United States Environmental Protection Agency

2/8/2008

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Customizing HealthySEAT

- **District-Specific Info**
  - District info, logo, facilities, assessors
- **Program Info**
  - Customizing content—master program and custom checklists
  - Letters, priority levels, district policies
- **Application Settings**
  - Connecting to a Version 1 or other back end database
  - Security

Main Menu > Customize for District

Customize for District

Return to Main Menu

This menu provides access to options that enable you to customize the HealthySEAT application and assessment program for your district.

District-Specific Information

Edit District Information

Load/Update District Logo

Add/Edit Facilities

Add/Edit Assessors

Add/Edit Contacts for Remediation

Program Information

Customize Assessment Guidebook

Add/Edit Custom Checklists

Edit Assessment Std. Priority Levels

Add/Edit Notification Letters

Manage District Policies/Programs

Application Settings

Re-establish Database Connection

Configure Security

Manage User Accounts

Configure Reminders

X Exit HealthySEAT | ⇒ Go To EPA Schools Website | ✎ Contact Us

Add/Edit Facilities

Save and Return to Customize for District

Use this form to enter key information for each school facility. Because much of this information is shown on reports and letters, most fields are either required or recommended. Click on the "Additional Facility Data" tab to add references to other data about each facility.

Add a New Facility

Delete This Facility

Facility Selectors: |◀ ◀ ▶ ▶| **Facility 1 of 3**

Go To Facility Where Name Is... [⌄]

Go To Facility Where Alternate ID Is... [⌄]

Main Facility Data | Additional Facility Data

Facility Name: Franklin High *   **Active?** ☑

Alternate Facility ID: H0004

Facility Type: High School [⌄] *

* Required - These fields must be completed in order for all application features to work properly. However, you are not forced to complete all of these fields before exiting this form.

Main Phone: (999) 777-6666   **Fax:** (999) 229-9987

Mailing Address *   **Physical Address** *   **Copy from Mailing Address**

Line1: 764 Brook St.   **Line2:** # 340   **Line1:** 340 Marley Blvd.   **Line2:**

City: Any Other Town   **State:** CA [⌄]   **City:** Any Town   **State:** CA [⌄]

Zip: 94556   **Zip:** 94550   **County:** Contra Costa

Primary Contact   **Facility Contact**

Salutation: Dr. [⌄]   **Name:** Mr. Albert White *

First: Marilyn *   **Last:** Franklin *   **Title:** Facility Operations Manager

Title: Principal *   **Phone:** (999) 876-9099   **Email:** aw@school.net *

Phone: (999) 987-6555   **Email:** mf@school.net

Other Facility Info: This is other information.

Form View

X Exit HealthySEAT | → Go To EPA Schools Website | ✏ Contact Us

Main Menu > Customize for District > Customize Assessment Guidebook

Customize Assessment Guidebook

Use this form (and its subforms) to customize the assessment guidebook to reflect the assessment standards that apply to your district. The hierarchy is Area/Topic > Subtopic > Assessment Standard. At each level you may check or uncheck the "Include" checkboxes to include or exclude specific items. For more information, please see the User's Manual.

Save and Return to Customize for District

Preview Guidebook for This Area/Topic

Preview Checklist for This Area/Topic

Add a New Area/Topic

Area/Topic Selectors:	◀◀	◀	▶	▶▶	Area/Topic 1 of 38

Go To Area/Topic... [▼]

Delete This Area/Topic

Area/Topic & Subtopic Quick Find

Include	Area/Topic *	Sort Order *
☑	Central Office -- Chemical Management	10

* Required

Add a New Subtopic

Include	Subtopic *	Sort Order *	# Stds.	
☑	Chemical Purchasing	10	Delete Subtopic	2	>> View/Edit Assessment Stds.
☑	Inventory	20	Delete Subtopic	2	>> View/Edit Assessment Stds.
☑	Storage and Labeling	30	Delete Subtopic	1	>> View/Edit Assessment Stds.
☑	Clean-out	40	Delete Subtopic	2	>> View/Edit Assessment Stds.
☑	Training and Handling	50	Delete Subtopic	3	>> View/Edit Assessment Stds.
☑	Hazard Communication Plan	60	Delete Subtopic	1	>> View/Edit Assessment Stds.

ABC School District

1200 Wilshire Ave.
Kansas City, KS 66101
913-555-1212

Assessment Guidebook

Area/Topic	Construction and Renovation
Subtopic	Siting
Assessment Action	The site selection process or decision to renovate/ expand existing building has taken into account community goals and needs. Smart Growth principles have been considered and integrated into the site selection process.
Type of Action	EPA Recommendation Priority: 4
Guidance for Assessor	Review school siting policy in conjunction with community master plan; ensure that community has a voice in the process.
Importance	The location of a school affects not only the school itself, but the entire community around it. School boards, educational facility planners, and communities will have to meet many goals—educational, environmental, economic, social, and fiscal—with their siting decisions. Choosing to renovate or expand an existing building, or choosing to build a new school in a central location accessible by foot and bicycle as well as by car, can improve the quality of the community as well as the school. Once educational goals are met, school district staff should consider how the investment in a new or renovated school can meet other community goals and needs.
Background	The principles of smart growth encourage development that expands economic opportunity, protects public health and the environment, and creates and enhances places that people love. These principles, when applied to school siting decisions, can encourage a school to locate in a central area where infrastructure already exists and where the site is easy to walk or bike to, uses less land, and is a vital part of an economically, environmentally, and socially healthy community. Smart Growth Principles: 1| Mix land uses; 2| Take advantage of compact building design 3| Create a range of housing opportunities and choices; 4| Create walkable neighborhoods; 5| Foster distinctive, attractive communities with a strong sense of place; 6| Preserve open space, farmland, natural beauty, and critical environmental areas; 7| Strengthen and direct development towards existing communities; 8| Provide a variety of transportation choices; 9| Make development decisions predictable, fair, and cost effective; 10| Encourage community and stakeholder collaboration in development decisions.
Links to Detailed Guidance	EPA Smart Growth Web Site@http://www.epa.gov/smartgrowth/ Schools for Successful Communities: An Element of Smart Growth (Council of Educational Facility Planners, Int)@http://www.cefpi.org/pdf/SmartGrowthPub.pdf Smart Schools, Smart Growth Web Site@http://www.smart-schools.org

X Exit HealthySEAT   ➡ Go To EPA Schools Website   ✎ Contact Us   Adobe PDF

Main Menu > Customize for District > Customize Guidebook/Checklist > View/Edit Assessment Stds.

Assessment Standard Details

Save and Return to Customize Assessment Guidebook

The information below provides details on the assessment standards for the selected area/topic and subtopic.
These details are also viewable in the Assessment Guidebook.

Edit Assessment Standard

Area/Topic: Central Office -- Chemical Management

Save Edits | **Cancel Edits**

Subtopic: ...NEW...

Assessment standard fields are unlocked for customization. Use caution when editing.

There is **1** assessment standard under this subtopic | **Standard Selectors:** |◄ ◄ ► ►| **Standard 1 of 1**

Assessment Standard: Visitor Access Controlled through a particulat point or enterance

Add Assessment Standard

Delete Assessment Standard

Preview Guidebook Page

Select Program View:
◉ District   ○ EPA (Default)

Restore EPA Defaults

Include this assessment standard in the assessment guidebook?   ◉ Yes   ○ No   Sort Order: 99999

| Type of Standard | Guidance for Assessor | Default Corrective Action | **Priority** | Importance | Background | Links to Detailed Guidance |

Select Priority: [4 ▼]

Days to Resolve: 180

Priority Description: A condition that may not be driven by a regulatory or district requirement that in the judgment of the inspector warrants documentation and referral for corrective action.
        Example: School does not have an Integrated Pest Management plan.

Click "Edit Assessment Standard" button to edit this information

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Main Menu > Customize for District > Add/Edit Custom Checklists

Add/Edit Custom Checklists

Save and Return to Customize for District

Use this form to create new custom checklists. Click to highlight each assessment standard to include in checklist, click again to remove.

Add New Checklist

Checklist Selectors:	◄◄	◄	►	►►	**Checklist 1 of 1**

Delete Checklist

Go To Checklist... [▼]

Checklist Name:	**HealthySEAT Example Starter Checklist**	*	Active? ☑
Description:	This is only an example; districts should determine what standards should be added to comply with all applicable r		**Save Edits**
Notification Letter:	ASSESSMENT_NOTIFICATION	▼	

Preview Checklist

This checklist includes **95** active assessment standards (see highlighted rows in list box below)

Jump to Area/Topic...	[▼]	...Subtopic...	[▼]	<< Use these drop-down lists to go directly to an area/topic or subtopic

Area/Topic	Subtopic	Assessment Standard	* Required
Central Office -- Chemical Management	Chemical Purchasing	School is purchasing chemicals in a manner that is consistent with the District's purchasing policy.	
Central Office -- Chemical Management	Chemical Purchasing	All chemicals are purchased in quantities that will be used during the current school year.	
Central Office -- Chemical Management	Inventory	School has conducted an inventory of all of the chemicals on-site, including school maintenance (clean	
Central Office -- Chemical Management	Inventory	All chemicals on the premises can be identified on the approved products list.	
Central Office -- Chemical Management	Storage and Labeling	All chemicals are stored properly.	
Central Office -- Chemical Management	Clean-out	School updates its chemical inventory list at least annually to reflect removal of chemicals from school.	
Central Office -- Chemical Management	Clean-out	School has conducted a chemical clean-out, identifying and removing unnecessary hazardous materials	
Central Office -- Chemical Management	Training and Handling	School employees and students are properly trained to handle chemicals and lab equipment.	
Central Office -- Chemical Management	Training and Handling	Only trained employees are permitted to transport chemicals within the building, and only after school ho	
Central Office -- Chemical Management	Training and Handling	Food and drink are prohibited in areas where chemicals are handled or stored.	
Central Office -- Chemical Management	Hazard Communication Plan	School has a written hazard communication plan.	
Central Office -- Energy	Energy Star	School is aware of the district's energy efficiency policy/program goals.	
Central Office -- Energy	Energy Star	School tracks whole building energy use, assesses energy performance using EPA's Energy Performanc	
Central Office -- Energy	Energy Star	Procurement policy in place that favors the purchase of products carrying the ENERGY STAR, including	
Central Office -- Energy	Energy Star	Monitor power management software on computer networks is installed.	
Central Office -- Hazardous Materials	Asbestos Management Plan	School has an up-to- date asbestos management plan on file containing designation of a contact person	
Central Office -- Hazardous Materials	Asbestos Management Plan	School has an up-to-date asbestos management plan on file that contains documentation of the steps to	
Central Office -- Hazardous Materials	Asbestos Management Plan	School has an up to date asbestos management plan on file containing records for periodic surveillance	
Central Office -- Hazardous Materials	Asbestos Management Plan	School has an up to date asbestos management plan on file containing a blueprint, diagram, or written d	
Central Office -- Hazardous Materials	Asbestos Awareness Training	Local education agency provides asbestos awareness training to all of its maintenance and custodial sta	
Central Office -- Hazardous Materials	Initial Asbestos Inspections	An initial asbestos inspection has been conducted.	
Central Office -- Hazardous Materials	Follow Up Asbestos Reinspections	Follow-up re-inspections to the initial asbestos inspection have been performed every three years.	
Central Office -- Hazardous Materials	Asbestos Records	School maintains records of each preventive measure and response action taken for friable and nonfriab	
Central Office -- Hazardous Materials	Carbon Monoxide	School has an inventory of all combustion appliances that are potential sources of carbon monoxide.	
Central Office -- Hazardous Materials	Carbon Monoxide	School inspects all combustion appliances that are potential sources of carbon monoxide on an annual	
Central Office -- Hazardous Materials	Carbon Monoxide	School places restrictions on the placement and use of gasoline powered engines or tools inside the bui	

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School-Specific Assessments

- Starting a new assessment
- Entering recommendations
- Creating the recommendations package

ABC School District

HealthySEAT

Healthy School Environments Assessment Tool

Version 2.0

Main Menu
Select from the available options below

Customize for District	Fully customize HealthySEAT for your district's assessment needs (including guidebook, checklists, and assessment standards).
Manage School-Specific Assessments	Schedule assessments, view/enter recommendations, and generate notification letters, checklists, and recommendation reports.
Open Reports/Output Menu	View, print, and export a wide range of data about your district's assessment program.
HELP	Open the HealthySEAT User's Manual (which was saved to your hard drive during installation).

Exit HealthySEAT

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♻ **EPA** United States
Environmental Protection
Agency

10/30/2007

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Main Menu > Manage School Specific Assessments > Facility Selection

Facility Assessment Summary

Save and Return to Facility Selection

1 Facility Found Matching Criteria

Facility Information

Active? ☑

Edit Contact Information

Facility Name:	Alpha High
Alt. Facility ID:	Bldg 1
Facility Type:	High School
Phone:	555.111.2222 **Fax:** 555.111.2223

Physical Address:

Address Line1:	**Line2:**
City/State/Zip:	

Mailing Address:

Address Line1:	12 School Drive **Line2:**
City/State/Zip:	Pittsburgh PA 15222

Primary Contact:

Salutation: Dr. ▾ **First:** Victoria **Last:** Davis

Title: Principal

Phone: 555.111.2222 **Email:** Victoria.Davis@abc.edu

Facility Contact:

Name: Ralph Jones

Title: Operating Engineer

Phone: 555.555.5555 **Email:** ralph.jones@abc.edu

Other Facility Info: Major renovation completed 2004. 2007 enrollment: 2015

Assessments for This Facility

Add a New Assessment

Double-click an assessment listed below to view/edit assessment details, including recommendations

Assessment Date	Reason	Assessor	Checklist	Re-Assessment Date	Re-Assessor	Closed?	Date Closed

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Main Menu > Manage School Specific Assessments > Facility Selection > Facility Assessment Summary

Assessment Details

Save and Return to Facility Assessment Summary

Closed? ☐ **Date Closed:**   Alpha High

Email to Facility Primary Contact

Reason: [▼] *

Delete This Assessment

Checklist: <Master Checklist> [▼]   Victoria.Davis@abc.edu

Additional Information: [   ]

* = Required

Initial Assessment

Assessment Date: [   ] * 📅

Assessor: <Not Selected> [▼] *

Date of Notification Letter: [   ] 📅

View Assessment Notification   **View Assessment Checklist**

Re-Assessment (if necessary)

Re-Assessment Date: [   ] 📅

Re-Assessor: <Not Selected> [▼]

Date of Notification Letter: [   ] 📅

View Re-Assessment Notification   **View Re-Assessment Checklist**

Recommendations from This Assessment

Double-click a recommendation listed below to view/edit recommendation details

Add a New Recommendation   **View Recommendations Package**

No Recommendations? ☐

Priority	Due Date	Closed?	Room/Location ID	Problem/Corrective Action

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Recommendation Details

Save and Return to Assessment Details

Facility Name:	Granville Elementary
Assessment Type:	Routine
Date:	7/26/2007

Delete Recommendation

Limit Selections to Custom Checklist? ☑

Area/Topic: Playgrounds ▼ *

Subtopic: Sharp Points and Edges ▼ *

Assessment Standard: All equipment free of sharp points, edges and splinters. ▼ *

**Problem Description/
Corrective Action:** *

Wood on pirate ship weathered and starting to splinter. Needs sanding.

* Required - These fields
must be completed in
order for all application
features to work
properly. However, you
are not forced to
complete all of these
fields before exiting this
form.

Room/Location ID: Playground 1   **Replicate This Recommendation for a New Room/Location**
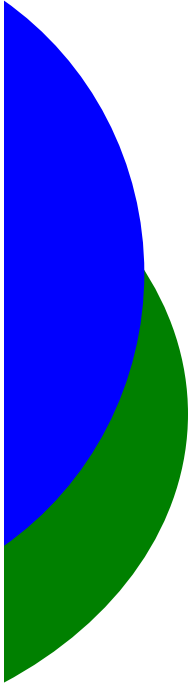
**District Contact
for Remediation:** ▼

Priority: 3 ▼ **Due Date:** 8/7/2007 🗓

Closure Method: ▼

Closed By*: ▼

Closed? ☐   **Date Closed:**

* Either select from the drop-down list or type in a name

Reports

ABC School District

HealthySEAT

Healthy School Environments Assessment Tool
Version 2.0

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start

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Main Menu > Open Reports/Output Menu

Reports/Output Menu

Return to Main Menu

Step 1 - Select a Report/Query Group

○ Program-Level   ○ District-Level   ◉ School-Level   ○ Application-Level

Step 2 - Select a Report or Query

Assessment Details by Facility

Assessment details grouped by facility.

Step 3 - Filter the Report or Query

Date Range: 1/1/2007 🗓   to   10/30/2007 🗓

Facility: Granville Elementary

Step 4 - Select an Output Format

◉ Print Preview   ○ Text (plain)
○ Excel   ○ HTML
○ RTF (rich text)

Generate Report/Output

HealthySEAT Software Technical Support:

HSEAT_Support@cdm.com

General info/assistance on HealthySEAT:

axelrad.bob@epa.gov

202.343.9315